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ON THE PATHOLOGY OF SURGICAL INFECTION, AND THE VALUE OF ANTISEPSIS.

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(Concluded.)

To return for a moment to the question of predisposition and immunity. I know a young physician who had never been vaccinated, who had never had variola, and who was exposed for periods of days at a time to a small-pox atmosphere because of his attendance on such cases in a small-pox hospital. He even then did not get this disease. His was a case of decided immunity from this affection. There are many more. Others escape the contagium because of vaccination. Many succumb to it in spite of vaccination. Some are even vaccinated at short intervals of a few months, almost always successfully, and not only become infected with variola, but die with it. These latter are cases of predisposition. Again, given a case of scarlatina, diphtheria, rubeola, or any other acknowledged contagious disease, and given ten people, all in apparently the same condition, who never had any sickness, and one will get the disease to which he has been exposed and die, another will get it and not die, still another will get it so as to be barely perceptible, and another will escape without the slightest disagreeable experience. The remainder will distribute themselves among those mentioned. Here we have once more an illustration of immunity and of predis-

position. How much depends upon the contagium, so-called, we have not always the means of judging. A strange fact in this connection is that physicians are, as a class, constantly being exposed to contagious and infectious diseases, and without protection, not even always in fair health, and how comparatively few are the instances where any of them are affected. Surely, as a class, they cannot be said to have a peculiar immunity *altogether* due to constant exposure, thus becoming accustomed to the poisons, for the exposure at the beginning is immediate and abundant, not gradual and slight. The fact is that contagium, as a rule, may be said to be of not much consequence without predisposition, and that predisposition without contagium is more to be feared as tending to the development of the disease to which the patient is predisposed than is the contagium without the predisposition.

The question now arises, what is the value of antisepticism?

When Lister introduced his dressing and gave his reasons, it was not long before he was rewarded with general credence of his views. He recalled the surgeons of the day to the care in handling and dressing wounds that had been in vogue with so much success not a great while before. He taught them to take care in operations; not to roughly handle wounded or injured tissues; to be slow and sure, rather than quick and uncertain; scrupulous cleanliness; rest, both local and general, as nearly absolute as it could be attained; and the stimulation of the wounded tissues with solutions and other preparations having the avowed object of destroying or intercepting micro-organisms, which he believed to be the special pathogenic cause of the vari-

ous symptoms often complicating, or preventing recovery from operations and injuries.* He was right in treatment, and therefore successful. That Listerism has made accessible to the surgeon's knife almost any part of our bodies, cannot for an instant be denied. How it did so admits of two interpretations, if we choose to particularize. Surgeons operating by his methods were very successful. They were stimulated by these successes to new undertakings that previously no one dared attempt. The same kind of blind fanaticism, though milder in degree, that pervaded Europe during the Crusades, the Reformation, and the mental epidemics portrayed by Ecker, also dominated the surgeons of the whole world, and antiseptics were their charm that insured final success, as was the cross that of the Crusaders.†

Lister gave the impetus that brought about these grand results, and for this merits and has received undying fame. The essentials of the methods he reinstated will probably and with good cause always prevail, but not so his theory of germs and their effects. The antiseptic rage has done incalculable good, but also a great deal of harm. Its advent was timely, else it would never have spread. Its practice with the idea of killing micro-organisms is on the

*How hard it is for the bacteriologist to prove that the good effects of antiseptics are due to germ-killing properties, may be seen from the fact that it is extremely difficult, if not impossible, to separate this germicidal property of antiseptics from their stimulating power, or to get a liquid that originally does not combine both.

†While the advance made by surgery during the last two decades, or more, is to be almost wholly ascribed to Lister's innovation, it must not be inferred that success crowned every effort because of the new way. Surgeons were taught better practical surgery entirely aside from antiseptics, and to this better surgery will eventually be ascribed the success of the more recent operators, instead of to germicidal fluids and powders because of such properties. The favorable comparison between the results attained from the practical application of the new surgery, as compared with the old, led to the performance of untried operations; these succeeding, led on to others, until, like a rolling ball of snow, slightly broken records of success accumulated so as to form the enormous, bold, and complex surgery of to-day. The misinterpretation at the beginning, as to the real cause of the improved results, the bacterial theory, grew in the same, or even greater, ratio. This sole idea of germs took possession of every unguarded professional mind, to which it has adhered, and where it has developed to the stupendous proportions of to-day. The investigations of certain bacteriologists, as for instance Pasteur and Klebs and Koch of Europe, and Salmon of this country, while justifying many inferences and establishing many minor and very few major facts, are largely the cause of the present exaggerated estimation of the germ theory in its application to surgery. The men who least understand the value of the facts and seeming facts now established in this field of research, are the ones who overburden the literature on the subject, and compel a forced postponement of a mature judgment on the results of original work in this department. Unfortunately, very few surgeons are pathologists of the practical kind, and vice versa. The same may be said with as much truth of surgeons being bacteriologists, and the contrary. But how seldom, if ever, do we see combined in one man the practical pathologist, the surgeon, and the bacteriologist? Sad, but too true, is the fact that in most instances each man has to theorize in two of these departments while he practices the other. This is one of those instances where science would be greatly benefited by the adoption of the co-operative plan.

wane. Its former advocates are undergoing a mental reversion. The reaction is approaching, and all should guard against its reaching the opposite extreme.

Now, what are the disadvantages of antisepticism?

The spray is abolished because its objections were too evident to long escape attention. The routine antiseptic vaginal douche is meeting a similar and equally deserved fate. Constant douching of a wound during an operation will also soon have to give way to a more rational and beneficial method. Pathologists and microscopists carefully preserve microscopical material from contact with water, because of its disorganizing effect upon the tissues. It ruins them for microscopical investigation. The effect of water is observed on the fingers if long immersed, giving rise to the so-called washerwoman's finger. It loses tonicity. It debilitates and enervates. The hot water immersion treatment of wounds does good by toning down the excessive inflammatory process; so do all hot moist applications, as poultices for instance, but if too long continued, they give rise to a sodden condition of the wound, and make matters worse instead of better. Carbolic acid solutions have the same effect, but in a shorter time, also benumbing the terminal nerve-filaments in the wound and the surgeon's fingers, whose tactile sensibility it is of prime importance to preserve at its best. More laparotomy cases have, in all probability, died of carbolic acid peritonitis than any of us suppose or would like to admit. I would in this connection formulate another rule—one that requires no further comment.

A local traumatic peritonitis has no tendency to spread unless it is preceded by the extension of some irritant matter from the original site of inflammation, and then the inflammatory process will follow this cause and only become general if preceded by it.

Lister's dressing and its derivatives prevent the inspection of the wound at will, and therefore are objectionable, because the surgeon should be able to inspect the wounded parts readily, and without disturbing the patient. A wound hermetically sealed, especially before glazing is completed, is objectionable in that it may give rise to bad symptoms in a feeble patient, and be followed by disastrous results, because of pent-up secretions. It is also objectionable because of the impossibility of an early detection of recurring or secondary hemorrhage. These objections have a practical side, and the dangers expressed have repeatedly happened. All the objec-

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tions to antisepticism contained in this paper have been demonstrated more than once in this city. So much is this so that it is useless to specify cases.

In brief, the principal points that it is the object of this paper to impress are as follows:

1. There are essentially but two kinds of union—primary and secondary.

2. All living tissues have common and special powers of reaction.

3. The common reactions are those of mere vitality, and the special reactions are the result of the performance or duties not necessary to life.

4. It is by their common reaction that cells overcome disturbances.

5. Repair in all structures is essentially the same, and only the manifestations are different.

6. Connection and support is the special duty of the connective tissue cell, and it is its sole and special duty to repair all breaches of continuity, and it does this without the aid of other cells.

7. Of all structures involved in the inflammatory process, the lower tissues, embraced by the term connective tissue group, undergo additional growth and development, while the higher tissues, embracing all that do not belong to the preceding group, become atrophied or are destroyed.

8. The repair of an open wound may be divided into three stages, extending in regular order up to the glazing of the surface, the formation of granulations and pus, and the end of repair.

9. There is transudation of blood, plasma, and serum, until glazing is complete, and of pus from the time granulations are formed until the end of repair.

10. There is no transudation from the wound from the time glazing is completed till granulations and pus are formed, but the wound's surface is protected with a coagulated albuminous layer.

11. So long as there is transudation from a wound there is no danger of absorption by that wound.

12. The possibility of absorption during the intermediate state just mentioned may be called an open question.

13. I do not believe absorption takes place, as a rule, even at this stage, if the albuminous envelope, the glazing, is perfect.

14. This intermediate stage lasts three or four days.

15. Admitting that absorption is possible at this time, and that antiseptics should be employed, they would only be indicated for three or four days.

16. Sealed dressings to remain so for weeks are not required for antiseptic purposes, and do good almost entirely by insuring greater rest to the injured part.

17. I believe that primary union is prevented principally by local and constitutional causes, and not alone by pathogenic micro-organisms.

18. Anæsthesia retards glazing, and indirectly prevents primary union because of the premature coaptation of the surfaces of the wound.

19. A local traumatic peritonitis has no tendency to spread unless it is preceded by the extension of some irritant matter from the original site of inflammation, and then the inflammatory process will follow this cause and only become general if preceded by it.

20. Surgical infection is a term too carelessly employed, and in most instances a misnomer.

21. Most often the symptoms ascribed to surgical infection are due to reactions of the whole system and of the wound against new conditions and irritations.

22. These reactions depend upon the predisposition of the patient, altered environment, and other defective conditions of life, for their characteristic manifestations.

23. The causes of most so-called infectious disorders are intrinsic and not extrinsic.

24. The absence of predisposition may here be said to constitute immunity.

25. Predisposition may be hereditary or acquired.

26. It may be gradually or quickly acquired.

27. It is not always evident, nor always possible of detection.

28. Hyperpyrexia is as normal in some pathological conditions as is the standard in health.

29. Excessive reaction is followed by temperature elevation.

30. Various affections have thermic elevations peculiar and normal to themselves.

31. If germs have any causative relation to surgical complications, they are impotent on a wound's surface unless the patient is predisposed.

32. Hyperpyrexia is produced by long-continued excessive action of any organ of the body or part of the body.

33. Local irritations, if long continued, if sufficiently strong, or if affecting a sufficiently sensitive structure, also cause a rise of body heat, and this whether or not the irritation is appreciated by the mind, although its recognition by the brain increases the effect.

34. Those tissues which have the richest nerve supply and densest consistence, as a rule, give rise to the most marked constitutional disturbances when congested or inflamed.

35. The more perfect, absolute, and continuous the rest of an injured part, the more favorable are the conditions of repair and the greater certainty is there of complete, rapid, and satisfactory recovery.

36. Conjoined with this, the most nourishing and most easily assimilable food, sustaining medication, with good hygiene and agreeable environments, constitute the best treatment of surgical cases.

37. Antisepsis is the prevention of contact between open tissues and living disease germs.

38. In a question of this kind, one negative experience, if without error, is logically as effective a refutation of a theory as are thousands.

39. One such negative experience has occurred in our midst in Dr. Jewett's case of diphtheritic cast of the vagina, and this is by no means a lone instance, as there are many others equally as conclusive.

40. Antisepticism, as above defined, is demonstrated to be a fallacy, and therefore can have no rational existence.

41. As good results are obtained by careful surgeons who do not employ antiseptics as is obtained by those who do.

42. I deny the causative relation of most so-called pathogenic microbes, because they are the results or concomitants, and not the cause of the diseases with which they are identified.

43. Lawson Tait, without the use of antiseptics, has exceeded all preceding records of success.

44. The greater success in the treatment of private patients, or patients in special hospitals over those in general hospitals, is not due to superior antiseptic facilities, but principally to greater attention on the part of the surgeon, healthier and pleasanter environments, and a superior and constantly appropriate diet.

45. Practical antisepticism, or Listerism, has its advantages and its disadvantages.

46. It does good by having revived and improved upon well recognized and highly valued older methods.

47. It has unconsciously furnished a means of overcoming the local tonicities of wounds, and it did so at a most opportune time.

48. This is accomplished by the stimulating effect upon the tissues of the so-called antiseptic preparations in moderate strength and for a limited time.

49. It has done good by instigating daring surgery, and leading to the achievement of the most brilliant, undreamt-of, and hoped-for results.

50. It is seductive, and causes men to adopt and follow it, who would be neither clean, gentle, nor careful without it.

51. Listerism may be designated a "God-send" to patients who have to put themselves under the surgical care of a large proportion of our fellow-practitioners, both in the city and country.

52. This is so because it controls them as religion controls the masses.

53. It has done harm by instituting new and pernicious methods, often at the expense of those that were older and beneficial.

54. It has poisoned many patients.

55. It has killed many other patients by increasing inflammatory action, especially of the peritoneum.

56. Its almost indiscriminate advocacy of sealed dressings is, and has in innumerable instances proven to be a source of interference with proper healing, and even an element of danger in preventing the early detection of deviations from the normal process of repair.

57. It also delays the recognition of recurring and secondary hemorrhage.

58. Its good is done under a cloak of irrationality, because its good effects are claimed to be due to the killing or inhibition of germs, whereas its benefits are wholly and unqualifiedly due to the rigid enforcement of the best surgical principles, fully recognized before the advent of the fallacy of antisepticism.

THE SOURCE OF THE URATES, AND THE PROPER MEANS OF THEIR REMOVAL WHEN IN EXCESS.

BY T. C. SMITH, M. D.,

Of Aurora, Indiana.

The terms urate and lithate are synonymous, but the former being more frequently used, will be employed in this brief discussion. "Urate is a generic name for salts, formed by the combination of uric or lithic acid with different bases." (Dunglison.) The urate of soda is the salt commonly the most found, perhaps, in urinary concretions, though of course we know other urinary salts enter into their make-up.

The source of the urates will not require a long discussion. Physiology teaches, and daily observation bears out, the fact that uric

acid, urea and urates are "found within the body by the metamorphosis of nitrogenous organic substances." They are "most abundant under the use of animal food, and diminished by a vegetable diet, and are reduced to a minimum during complete abstinence" (Dalton), though not disappearing altogether. Thus it is at once seen that the diet has much to do with the quantity of the urates found in the urine of our patients. The amount of tissue waste that goes on in the body is also another factor that determines the quantity. This latter factor is greatly influenced by rest, exercise, mental labor or worry.

"The most important fact known with regard to the origin of urea"—and of the urates—"is, that it is not formed in the kidneys, but pre-exists in the blood in small proportion, and is drained away from the circulating fluid during its passage through the renal vessels. * * * It has not been found, however, in the solid tissues in sufficient quantity to indicate the immediate source of its production. It is either formed in the blood itself, by the transformation of some previous nitrogenous combination, or it is absorbed by the blood too rapidly to be detected as an ingredient of the solid tissues." (Dalton.) Such is the language of one of our best physiologists, used about ten years ago.

Holding in our minds the undisputed fact that urea and all its salts result from tissue waste in the body, or from the nitrogenous food ingested, we have a practical point from which to start in ascertaining their primary origin in the system.

If a nitrogenous diet increases the urates in the urine, and a vegetable diet causes, or is followed by, their diminution, then we may know for all practical purposes that organic nitrogenous food is related in some way to their production, and more especially to their excess.

If we look to the proteid compounds we will find that their free use has a decided influence over the quantity of urates in the urine. The proteids are not affected by being passed through the saliva in mastication. Gastric juice dissolves them. Upon these proteids pepsin and the gastric juice produce decided effects.

"Before digestion, an albuminoid is termed a 'proteid,' the digested proteids are termed 'peptones.' As peptones, albuminoids readily pass through the walls of the digestive canal into the blood, the change is caused by adding a molecule of water." (Fothergill.) The fat of our foods is also absorbed by the lacteal glands, after being reduced to an

emulsion by the action of bile and of the pancreatic juice.

We may thus see that the peptones and the fats are thrown into the circulation, to be carried, by some means, to a higher state of preparation for tissue building as the system may demand. That these cannot be assimilated by the tissues of the body, in the state in which they are absorbed, will be readily admitted. They must be carried a step higher in the process. Where then can they be further prepared? Does the blood prepare them for such appropriation? Do the tissues themselves work the needed change? Do the nerves effect it? I trow not.

There is one great, active, industrious, much-abused gland upon which the weight of this further preparation falls almost entirely, *i. e.*, the liver. The liver is, indeed, a very important organ in the digestive process, and the term "liver digestion" is as appropriate as that of "gastric digestion." All, or quite all, of the nutrient material that the absorbents take up must needs pass through this great digestive gland, and be prepared for use or for assimilation by the tissues, and in the rapidity of the circulation and the vast blood supply of the liver, much of the nutrient material will pass through that organ and be subjected to its action many times in the period required for the complete preparation of proteids and fats for tissue building in repairing the waste natural to the system.

In the process of liver digestion, the urea and its salts have their origin, and this seems to be their source. From here they enter the circulation, from which they are filtered by the renal organs. The kidneys do not secrete these, they simply filter them out of the blood.

The liver, like the stomach, can do a normal amount of work well, and can for a time do excessive work and remain quite normal in condition. But like the stomach, when pressed long and hard by an excess of work, especially by the too free ingestion of nitrogenous compounds, it is compelled to pass much of the nutrient material on into the blood only half prepared for assimilation. From this there soon results an excess of the urates in the renal discharge. This leads me to say that under such a condition of the digestive and assimilative process, the appearance of an excess of urates in the urine stands as a clinical evidence of an overworked liver for the time being at least.

Such an overworked condition may result from the ingestion of an excess of nitrogen-

ous food, or from the partial failure of stomach and intestinal digestion, which thus throws double work on the liver. In either case the liver is not able to perform all the work required of it. As a result, part of the nutrient material submitted to its action is but partially acted upon, and it becomes waste material in the blood, which soon acts as a poison to the system. This brings on what is often called a bilious attack, a storm of sick headache, a neuralgia if complicated with malaria, a rheumatic or gouty attack. Often, however, it stops short of this, producing simply a feeling of heaviness of body, mental hebetude, and crossness of temper.

As to the hepatic origin of these salts, let another speak. Mr. Foster says (Fothergill on Indigestion and Biliousness, p. 57): "Uric acid . . . like urea is a normal constituent of the urine, and like urea has been found in the blood and in the liver and spleen. By oxidation a molecule of uric acid can be split up into two molecules of urea, and a molecule of mesoxalic acid. It may, therefore, be spoken of as a less oxidized form of a proteid metabolite than urea; but there is no evidence whatever to show that the former is a necessary antecedent of the latter; on the contrary, all the facts known go to show that the appearance of uric acid is the result of metabolism slightly diverging from that leading to urea." To this statement Fothergill adds: "It must then be regarded as the product of perverted metabolism in the liver. Prout held uric acid to have another source than urea, to be formed largely from gelatinous forms of our albuminoid food, while urea was held to be derived from ordinary albuminoid matters. This view was soon abandoned, and it was thought that uric acid was a normal product, viz., a sort of nitrogenized waste preceding urea and converted into urea by further oxidation, or by a splitting up into urea and oxalic acid. Now we regard it as a product of perverted metabolism in the liver. The appearance of lithates in abundance in the urine about the time when the liver is actively engaged in the digestive process, renders it highly probable that certain peptones, instead of undergoing further elaboration are turned aside and broken up prematurely into lithic acid and lithates. These lithates do not represent tissue waste, for they have never been tissue." That is, they have at such a time been carried to elimination before having been thoroughly elaborated to a condition fit for tissue building. Thus an excess of water may appear in the

urine from an overtaxed liver. Such an overtax may result from ingesting excessively of nitrogenous foods or from imperfect gastric digestion. In either case the metabolism of the proteids is not perfectly performed, and the process of elaboration falls short of completion, thus leaving the urea and urates to be cast into the circulation in a half-prepared state, only to be eliminated by the renal organs. As Fothergill by way of illustration says: "They stand in the same relation to the tissues that a stillborn child bears to an estate that it would have inherited had it been born viable. So the material which forms the uric acid might have been tissue under more favorable circumstances"—that is, if the "liver digestion" had been carried a step further in the elaborative process.

Dr. Murchison, a high authority, in his Croonian Lectures before the Royal College of Physicians, said: "I need not remind an audience such as that which I have the honor to address, that deposits in the urine of lithic acids or lithates, are not due to any morbid condition of the kidneys; what I wish to insist on is, that the frequent occurrence of these deposits in the urine ought always to be regarded as a sign of functional derangement of the liver, arising from causes temporary and sometimes more or less permanent."

In this decided expression by an able authority, there is no uncertain sound. Fothergill endorses this opinion, and further adds: "These deposits in the urine, then, are significant of disordered functions in the liver. They belong to indigestion proper."

Heretofore they have been held as signs of deranged renal functions, and the pathology was referred to the kidneys. Gravel was a kidney disease, etc. Now we know we must look farther for the cause of lithates in the urine, and of renal and vesical concretions. We may then fairly know that the source of the urates is imperfect "liver digestion" when too much nitrogenous food is ingested, or when there is gastric dyspepsia that causes too much work to be thrown on the liver, and also that the lithates result from and normally represent the tissue waste of the body.

How to get rid of their excess when present, is a question of practical importance to us, for we meet with patients almost daily, who have made themselves sick by pleasing their palates at the expense of their digestive powers. It is astonishing how many ills this form of indiscretion will originate.

Under the old idea that lithic salts in the urine indicated renal disease, it was common

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to give the alkaline potassa salts. For present relief, this was good practice, because of the affinity of the potassa salts for the uric acid; thus it dissolved the urates out of the blood and gave prompt relief. Yet this practice was based on a mistaken pathology.

It is well to remove the excess of urates, but to prevent a reaccumulation we should cut off all excess of animal food, and reduce the amylaceous articles of diet to the real needs of the system. This done, the excess of lithates soon disappears.

If we find a case—as we will now and then—where there does not seem to be an excess of proteids taken, where digestion is good, and yet the lithates are in excess, the urine with an ammoniacal odor, etc., I know of nothing better than the free use of hydrochloric acid abundantly diluted and sweetened to the taste.

To say that this matter of excess of the urates in the renal discharge is a small affair in a practical sense, is to take a perverted or very limited view of its importance. Such an excess of the urates indicates the fact that there is floating in the blood-current much material that is really dead, decomposing matter that acts as animal poison to the whole system. If the urea and urates, as we have tried to show, result from a failure on the part of the liver to carry its digestive process up to full elaboration of all the organic nitrogenous ingesta submitted to its action, after it passes from the stomach and intestines, then these salts represent so much animal tissue that must of necessity become decomposed in the blood-current, and is thus constituted a deadly poison to the physical economy, unless it is promptly eliminated. Whether this excess of the urates results from a redundancy of food taken, or from a too rapid waste of the tissues of the body, matters not as to its poisonous effects, though it does matter as to the prognosis of the case, the latter condition being the most serious.

These retained urates will poison the whole brain and nerve centres, so as to constitute true uremia and death. I well remember a hale, hearty, fleshy young man, of 22 years, who, without known cause, beyond free cramming of animal food, with much of a rich amylaceous quality, and a common "bad cold," was suddenly attacked with convulsions and furious pain in the head. His bowels were freely purged, head was kept cool, chloroform was resorted to for controlling the convulsions, the bromides freely used, and venesection was practiced. The urine was analyzed, inspected, found to be

scant in quantity; a few drops of nitric acid would render it at once almost solid, thus showing the urates to be in great excess in the urine and in the blood. This patient died comatose in about thirty-six hours. Call it meningitis, cerebritis, cerebral congestion, or whatever you like; but I fully believe if we could have cleared him of the uremic poisons floating in his blood, by securing free diuresis, free sweating, etc., we could have prevented his death.

The same poison floating in the blood current will give rise to furious storms of sick headache, neuralgia, so-called biliousness, any of which are, under such conditions, promptly relieved by the free eliminative, systemic processes, or remedies. Hence nature sets up free enuresis, catharsis, or emesis. At once the subject is made better. Hence also the profession have learned to promptly secure this elimination by one of nature's outlets. For this reason, the old practice of venesection, cholagogues, and emetics rendered prompt relief, and were generally practiced.

The biliary and renal concretions have their origin in the same source. When these effete elements become more abundant, then it is impossible for the bile or urine to keep them in solution, then deposits occur in the bile or urine, and concretions are formed. After awhile the patient has a furious attack of hepatic or nephritic colic. If the former, the concretion is carried off per rectum. If the latter, it is left in the bladder to constitute a case of vesical calculus, unless the patient is fortunate enough to pass it away per urethra, or the urine be rendered acid enough to dissolve it. To prevent all this trouble and painful affliction, or often death, the best plan is, if possible, to regulate the diet as above indicated. If the concretions are already formed, or if the salts are thick in the urine, then we should properly regulate the diet and use free eliminating agents, as potas. bicarb., sulphate of soda, epsom salts, colchicum, etc., etc. If this condition results from the too rapid retrograde metamorphosis of the tissues of the system, as it is liable to do in the overworked, the feeble, the pregnant, and the aged, then the use of the mineral acids with proper digestive agents will best remedy the pathological condition present. In either case the patient should keep the bowels fairly soluble, use but little animal food, and drink very abundantly of pure soft water. It is an excellent practice to flood the system with water in this class of cases. Water is one of our very best systemic renovators if we will flood the tissues

with it, and among the best mineral springs in the world will be found the cistern of good pure water at our own doors. Thousands of patients who are benefited at watering-places receive their improved health more from flooding the system with water, thus washing effete material out of the tissues, than from any real potency of the waters they so freely use at such places. The free use of pure cistern water will accomplish this as well as any in the country, but will not require the exhibition of as many silks, satins, trunks, etc.

MEDICAL SOCIETIES.

CHICAGO MEDICAL SOCIETY.

(Continued from page 207.)

Dr. D. T. Nelson in opening the discussion said: "Mr. President, I am glad to have heard the paper, and think it is a most valuable one. The cautions that it gives are certainly those that all of us should remember, to wit: the length of the instrument used compared with the length of the uterus, the slow and gradual dilatation of the uterus before using the inflexible stem, and removing it on the occurrence of bad symptoms. In recent years I have not been in the habit of using the stem pessary as much as my friend Dr. Jackson, but I think that with his present instructions, I shall try it again. Not that I have not tried gradual dilatation, and the gradual, slow, careful straightening of the uterus, but I have not by this particular means caused the pessary to be retained as constantly as he has. The vulcanite pessary, and the various other forms, including the Wright's or Chambers's modification, I have used, and with many of the difficulties the doctor has narrated. But with his modification it seems to me very likely we can use them with better success. The irritation produced by them has been a great drawback, and in recent years it has been my habit rather to use the form of pessary recommended by one of our members, Dr. W. H. Byford, the slippery elm bougie. It produces a gradual dilatation of the uterus, and often produces remarkable results in the treatment of the flexions, and I have had no bad results from its use. One point that the doctor did not emphasize sufficiently, is that the instrument should not be retained long if it produces pain, but it should be removed and the patient put to bed. I should have preferred to have him give directions for the

patient to remove the instrument if the pain continued for a long time, for if it does the instrument ought to be removed; and if he should happen to be out of the city and the patient should be unwilling for any one else to see her, serious disease might commence before he returned and removed the instrument. For this reason it is, and always has been, my plan to have the instrument so arranged, by a string or something of that sort, that the patient can remove it herself. We should remember that the instrument should be less than the uterus by a third of an inch; that the uterus is to be put into its proper shape, in a splint, as it were, and then expected to grow right—that it is not cured when it is straightened—if it has been displaced for a considerable time there has been an atrophy of the uterine tissue on one side, and it may take weeks, or perhaps months, to alter the nutrition of the different parts of the organ, and until that change has taken place it is not likely that the patient is permanently cured, unless pregnancy has taken place, and altered the nutrition of the parts. As to pelvic inflammation, the author has been more fortunate than most of us in the use of stem instruments. One point I wish to add, viz., that when there is any possibility of gonorrhoeal poison lurking in the genital passages of the female, greater care should be taken in the use of such instruments, or operative procedure of any sort, for that matter. I feel, when there is reason to suspect that this poison has once been implanted, that I hardly dare to introduce sound, pessary, or other instrument in the interior of the uterus, and believe that such an instrument should be used with the greatest caution in these cases."

Dr. E. C. Dudley said: "Mr. President: The marvelous freedom from dangerous inflammation following the treatment of uterine flexure by forcible dilatation and by the application of the intra-uterine stem, furnishes a striking illustration of the fact that the human uterus will sometimes endure an immense amount of abuse. My own preference is generally for the former method, as advocated by Goodell, Ellinger, and others. My experience has only tended to confirm me in the impression that forcible dilatation is reasonably satisfactory in its results, and that the results are reasonably permanent. I would seldom advocate the use of intra-uterine stem pessaries for retroflexion unless the flexure were of the so-called congenital variety, and therefore associated with atrophy of the uterus, a condition which is very rare. The essayist has, perhaps for reasons

of brevity, omitted to make the distinction between physiological and pathological ante-flexion. This distinction within a few years has been quite clearly defined by Schultze, Fritsche, and others, and their teachings are now recognized as correct by many of the leading gynecologists throughout the world. In the light of their investigations the old diagram of Kolrausch, which for more than twenty years has generally formed the basis for the illustrations of the normal position of the uterus, is now quite generally discarded. The uterus has no absolutely fixed position, but it has a certain normal range of movements. The angle between the body and the cervix may vary according to the varying quantity of material in the rectum and bladder, from zero to at least 45° ; Fritsche says 90° , and his observation is possibly within the physiological limits. When the bladder is full the uterus becomes straight and the angle of flexure disappears. When empty the angle may measure from 45° to 90° , and yet not be pathological. It is moreover probable that a flexure of much less than 45° when the bladder is empty, should be considered pathological. Furthermore, ante-flexion, even within the defined limits, is always pathological if there be immobility at the angle of flexure; indeed, a displacement exists whenever the organ is restrained from its normal movements. In a word, ante-flexion is pathological if the mobility at the angle of flexure be increased or decreased beyond the physiological limits, or absent. Want of a clear understanding of these simple facts has led to the invention of innumerable pessaries for straightening the ante-flexed uterus, and they have been persistently employed, to the detriment of the patient, in cases of perfectly physiological ante-flexion. Suppose a case: The uterus is shown by digital examination to be so low in the pelvis that when the bladder is empty its entire anterior wall is easily touched. The physiological flexure, which may be from 45° to 90° , is then perfectly apparent to the examining finger—the symptoms of vesical irritation are attributed to the flexure, and an ante-flexion pessary is accordingly introduced, which produces pressure upon the anterior wall of the uterus. The symptoms disappear, and the conclusion is erroneously formed that the relief was dependent upon the straightening of the uterus, when in reality the pessary has, perhaps, produced no such effect, but has merely lifted the uterus to its health level, and thereby relieved the symptoms, which were due not to flexure but to descent. The same manner of treat-

ment has often been followed by relief from similar symptoms attributed to anteversion, when in reality the pessary, by lifting the cervix to a higher level, has exaggerated rather than reduced the anteversion. For this reason all vaginal pessaries especially designed for anterior displacements are in no respect superior to the ordinary Hodge pessary; indeed, they are objectionable, because in overcoming the descent they press upon the uterine wall and thereby cause irritation of the organ. Ante-flexion is only a symptom which may result from any one of a variety of widely different causes, such as adhesions, uterine fibroid, parametritis posterior, or failure of the puerile uterus to develop at puberty. It would indeed be irrational to attempt the relief of a symptom due to such diverse causes by any single plan of treatment. The essayist would not attempt to do this, but he has neglected to specify the particular flexures for the relief of which he deems the stem applicable. Inasmuch as many of these flexures are dependent upon uterine or peri-uterine inflammation, and inasmuch as there is reason to conclude that dysmenorrhœa and other evils are more the result of the inflammatory state than of the flexure itself, I would advise that the stem be reserved for cases which are not relieved after the inflammation has been removed by safer methods. Such a plan would certainly restrict the use of the stem to a very small number of cases, because the symptoms for which it is to be employed would so often disappear upon the cure of the inflammation. It is indeed probable that the dysmenorrhœa for which the author has employed the intra-uterine stem may depend rather upon some faulty nutrition, or upon some disease of the uterus independent of the flexure, and that the stem therefore gives relief by some change which it produces in the nutrition of the organ. If this be true, it would then follow that ante-flexion *per se* really furnishes no positive indication either in itself or in its results, but that the same treatment would be equally effective under similar conditions without the co-existing flexure. Congenital ante-flexion of the puerile uterus is undoubtedly a condition for which the stem may be considered one of the legitimate means of treatment. Sterility, whether associated with pathological flexure or not, has been successfully treated by the stem. Winckel says that the presence of the instrument may give a better development to the menstrual decidua, and thereby make a better bed for the ovum. One objection to the stem, strongly urged by Schultze, is

that by its use the physiological flexure is overcome, and it therefore may be said to produce rather than to relieve displacement. But we should not permit theoretical considerations to bias our judgment in face of the author's carefully observed results. His contribution is certainly a valuable one, and shows that the instrument, at least in careful hands, is less dangerous than is ordinarily supposed. The author's freedom from inflammatory results is doubtless due to his judicious preparation of each case by means of the olive-tipped bougie. Undoubtedly the observations of Dr. Jackson and others must be considered as placing the intra-uterine stem among the useful and approved resources in the treatment of these troublesome cases, but even at the risk of prolixity I again protest against the indiscriminate treatment of purely physiological ante flexion by any means soever."

Dr. H. P. Merriman said: "I have very little to add to what has been said. The use of the various methods that have been proposed seem to me to aim at one given end, to change the nutrition of the uterus. Forcible dilatation does that to a certain extent; it is temporary, however, in its action. Incision produces an alterative effect, and accomplishes its purposes. It does not succeed a great many times, neither does the temporary action of dilatation. The use of the stem pessary, on the other hand, succeeds because it is keeping up a continuous pressure upon the parts. Now, I am decidedly in favor of this treatment by stem pessary; it strikes me that it is the only rational method of treating these flexions, which are pathological. After the cause of a flexion has been removed, that is, the inflammation of the uterus, or the pressure of a tumor, or pressure of heavy clothing, or whatsoever causes it, the uterus does not always return to its natural state, and then we need to introduce some method for restoring it to its normal condition, and I do not know any more rational method than this one. This paper strikes me as a very valuable one. The valuable part of this treatment seems to me not to be so much in the use of this stiff stem, as the earlier treatment by the flexible stem, where, by continuous pressure upon the parts, we are able to accomplish the same effect as passing a sound in chronic cases of gleet, producing a healthy action in a diseased organ and thus producing absorption of a pathological exudate. It strikes me that the doctor recognizes this condition, for often before using the stiff Chambers' stem when he has been using these bougies, in a great many

instances he has found the treatment has nearly cured the disease, and if it had been continued longer I believe a cure would have been effected. The intra-uterine stem by continuous pressure induces an alterative action of the tissues, the absorption of exudates, and gradual return to the normal condition of the uterus, and a natural tendency toward a straightening of the uterine canal as the uterus becomes healthy."

Dr. Sarah H. Stevenson said: "I have listened to the paper with a great deal of interest, and also to the discussion. My methods are different; I have used the stem pessary a great deal in former years, but for the past two years I have discarded it entirely, as some of the results were unfortunate, although I think I have never had any serious results from the use of the stem. I now use, and have for the past two years, the galvanic current entirely, and it is applicable to all cases, especially in those in which the stenosis is so great as not to admit the passage of the bougie. I have never found a case in which I could not use this method with satisfactory results."

Dr. H. T. Byford said: "I quite agree with Dr. Dudley in his trite but very true remark, 'It is wonderful what an amount of abuse the uterus will stand,' and I congratulate Dr. Jackson that he has discarded incision and dilatation in treating flexions. I also congratulate him upon his good success. I believe the mortality from this treatment—the treatment by the intra-uterine stem—has been estimated to be from $\frac{1}{2}$ to 1 per cent. by those who have investigated heretofore. Whether it is so now, I do not know. The present per cent. of inflammation of the cellular tissue varies from 2 to 5 per cent., as nearly as I can determine. There are an immense number of cases in which the stem caused inflammation which have never been published. It seems to me that in considering this subject the reason for this treatment should be made more apparent. There are some who use it as a splint or merely to straighten the uterus; others use it as a stimulant on account of its continuous pressure. There is no doubt it stimulates and temporarily straightens the uterus, but it is well known that in time, in a large proportion of these cases, the uterus again becomes flexed. The question arises, should we straighten the uterus? As Drs. Dudley and Schultze have said certain flexions are supposed to be physiological (which I don't believe), the uterus is supported in the neighborhood of the internal os, which may be said to have a fixed place in the pelvis. The elasticity of

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the tissue will allow that part of the uterus to be pressed in nearly all directions, but it will come back. The fundus may bend forward or backward and remain in such position for some time, and the uterus still be in a normal position. During youth the child who sits too much, has a curved spine, etc., having a uterus pretty firmly fixed at the cervix, will often have the uterus pressed upon by the abdominal contents in the wrong direction. The normal resistance of the uterus to flexure will be gradually overcome (the uterus may even become atrophied), and a flexion results which, when slight, may be called a physiological flexion, and may exist without causing trouble; but it is pathological. The elasticity which the uterus of normally firm structure displays during the filling up and emptying of the rectum and bladder is hardly worthy of the name of flexure. Any considerable permanent flexure occurring in this way must be the result of want of firmness in the structure of the uterus. If we are going to use a supporter, we should use it when the flexure is forming, not after it has been produced. If we will use such treatment as will remove the improper pressure upon the uterus, viz., by straightening up the spine, using exercise, etc., etc., a stem will be seldom necessary, because whatever flexion has already been produced will usually not cause unpleasant symptoms. If it has gone to the degree of producing atrophy of the uterus, we may need to use a stem passary, but as a stimulant to the uterine tissue rather than a straightener of this organ. I have seen uteri bent almost like a horseshoe become impregnated and return almost to their former degree of flexion. The intra-uterine stem, in view of its slight action as a support and powerful action as a stimulant, and its notoriously bad record, should be the last resort. The frequency with which Winckel uses the stem is now about once in 218 cases, while formerly he used it about once in 50, and he is using it less all the time. In my experience and the experience of a great many others, if we cure the acute or subacute inflammation of the uterus and then apply stimulating measures, we nearly always accomplish the cure of the flexion by safer means. There are, of course, a few cases left in which the use of the uterine stem may be justifiable, but I think they are exceedingly rare. If those present, following Winckel, use them only once in 218 times, but few of us will live long enough to do a great deal of harm."

Dr. T. D. Fitch said: "Mr. President: I

think a paper so commendatory of a measure as this, will perhaps lead many members of the profession to adopt it without proper precautions and without realizing the dangers which attend the use of the intra-uterine stem. I believe it is a very dangerous instrument to use. I am an advocate, as you all know, of pessaries, but I do think the intra-uterine stem a dangerous instrument, and that in less careful hands than Dr. Jackson's serious results will often follow. My own experience in the use of it has been limited, for the reason that I became alarmed from the bad reports of cases by Dr. Chambers himself, the inventor of this bifurcated instrument which Dr. Jackson has exhibited. If the same precautions are used that are advised by Dr. Jackson, I think as a rule it might be entirely harmless—no, I should hardly be able to say entirely harmless, or entirely free from danger—but I think the precautions which he has adopted are very ingenious, and would in the majority of cases prevent serious results from the intra-uterine stem. His use of the bougies preceding the use of the inelastic stem, accustoming the uterine mucous membrane, or the uterus itself, to the presence of a foreign body within its cavity, is very ingenious, and a thing I never should have thought of myself. Although I have tried these pessaries occasionally, my great difficulty is to keep them in the uterus; I might open them in any direction I pleased, spread the blades as widely as I pleased, and they would slip out—they caused so much uterine contraction that they would be expelled from the uterine cavity into the vagina, and I have always been disappointed in the results from their use. For several years while I was in active practice, I had adopted the treatment of Peasley for flexion and stenosis, whether caused by exudation or spasmodic contraction of the os internum, that is by the use of his uterotome dividing the stricture at the internal os, and then gradually dilating the canal until I could introduce a No. 12 or 14 sound through the os internum. This was introduced every second day from one week to two weeks until it ceased to be followed by pain, and by hemorrhage after its introduction, showing that the os internum had been thoroughly dilated and the incision had healed sufficiently so that no blood followed the use of the sound. After the sound was introduced I used a large glycerine tampon for the purpose of depletion and relief from irritation and to support the uterus: if it was an inversion, it would hold the fundus up so as to assist in relieving the flexion to a certain

extent at least, and preventing the occurrence of inflammation. I have treated a great many cases in this way and with entire satisfaction, and never had a case of acute inflammation of any kind occur as the result. I believe, however, that a majority of cases of flexion are attended with versions more or less. I don't believe that flexions occur so frequently as is generally supposed, unaccompanied with version; the uterus is tipped over more or less in connection with the flexion, and in connection with the treatment which I have suggested I have always corrected the version, and used the ordinary support or pessary to keep the uterus in its proper place, thereby relieving any contraction or pressure which would keep up the flexion. I think the paper an admirable one, and the Doctor's precautions in the use of the instrument he has advised commendable."

Dr. H. C. Feeder said: "I would like to ask for information. In the report of these sixty cases of inversion and retroversion it has not been stated how many were accompanied by prolapsus, or what was the cause of flexion; whether in married women getting up too soon after confinement, or whether from acute inflammation. The paper does not go into the facts and state whether the uterus is lightened and thereby goes back of itself to a normal position, nor does it inform us if this could be assisted by giving medicine internally. Much depends upon the state of the patients at the time of treatment, whether they are in a healthy condition, or whether they have some specific blood disease in which medicine would assist in the treatment; and if the medicine has an alterative effect, how much benefit is received from the medicine and how much from the pessary."

Dr. Jackson said in concluding the discussion: "Mr. President, I feel that I ought to express my thanks for the courtesy with which this paper has been received. It is only a thirteen-minute paper, and there are a great many things in the domain of medicine that are not in it, and a great many questions might be asked on subjects growing out of and connected with it, which I could not answer if I were disposed to. The intention of the paper is simply to demonstrate the efficacy of a single remedy in correcting a single deformity. Questions as to whether the uterus was prolapsed, whether the patients had taken anti-bilious pills, or had cachexia, really do not enter into the consideration of the subject. I supposed that was perfectly plain from the fact that no mention

was made of anything beyond the mere condition of deformity. I am very glad so many excellent ideas have been added to it. The suggestion of Dr. Nelson as to the patient being able to withdraw the pessary is excellent, and is never omitted. I never introduce a pessary that I do not attach to it a silken cord by means of which the patient can withdraw it in case of necessity. As a rule, every patient should be able to withdraw any instrument placed in the genital passages; the regular attendant may not be at hand when needed, there may be an aversion on the part of the patient to calling in another physician, and she should have the proper means at her disposal. The remarks of Dr. Dudley as regards the distinction that should be made between pathological and physiological conditions resulting in flexion, are quite proper, and I agree with him fully. We all know that the conditions preceding and accompanying these bent conditions of the uterus are very various; and in many cases no stem, incisions, or other means will have a beneficial effect, although they may for a time cause the uterus to be straight. But the mere straightening is not always the main element of cure. When the uterus has been chronically flexed there will be a thinning of the side towards the angle, showing local failure of nutrition, either as cause or effect of the bending. Straightening, therefore, is one element of cure in a uterus where there is insufficient nutrition, and I do not believe that any other means exclusive of this cures flexion. But it must not only be straightened, but its circulation must be fully restored, otherwise the organ will resume its bent condition. We cannot put a splint on the outside of the uterus, and the intra-uterine stem affords a means by which the uterus may be kept straight enough to allow of circulation on each side. The method of treating flexions by forcible and extensive dilatation does more than dilate. It straightens, also. A bend may be just as acute in a large tube as in a small one, and mere stretching will not suffice, and its results usually not be permanent. Gradual dilatation is much more promising, and next to the method by the stem I would prefer it. I have only treated cases of flexion in which dysmenorrhœa was present, a symptom that interferes with the patient's health, and the dysmenorrhœa was usually cured or relieved. I do not think this such wonderful success; only about two-thirds of the cases were cured, some were simply improved, and in some I do not know the result. Yet I think there is no other method that will do quite as well.

The suggestions made in the discussion accounting for the safety and success of the treatment are, I think, correctly attributed to the preliminary measures—the slowness of the straightening and the promptness with which any tendency to harm could be met. The object was to accustom the uterus to its tenant, so that by and by it would accommodate a larger one, and in this way the uterus has been made to receive and tolerate the presence of an inflexible instrument. In one case a Chambers' stem was retained twenty months, and I think if the patient had not returned and told me she was wearing it, it would be there yet. It produced no unfavorable symptoms."

Dr. A. R. Small reported

A Case of Pistol-shot Wound.

May 2, 1886, he was called to see F. R., aged 23, who, a few minutes previously, had received a shot from a No. 32 pistol. Patient was suffering from shock, difficult breathing, and excessive pain in the left leg below the knee. The ball had struck the right eighth rib about two inches external to the costal cartilage. Sensation was lost in the right leg below the knee. Motion was not impaired in the right leg, though the sensation was lost below the knee. The left leg was hyperæsthetic below the knee, and motion slightly impaired. A drainage-tube was inserted about two inches into the wound, and the wound dressed antiseptically. The patient complained of no pain except in left leg below the knee, where the pain was excessive. Morphia was given hypodermically in sufficient doses to control the pain. Nothing was allowed the patient the first twelve hours but ice, and occasionally water. About 10 p. m. there was evidence of internal hemorrhage, and the patient seemed to be sinking. Milk was then given in small quantities frequently. The morning of the 3d he had rallied somewhat.

The urine was drawn by the catheter every eight hours, and contained blood. Respiration was normal after the first two hours.

On the afternoon of the 3d patient became delirious, and continued so, with occasional lucid intervals, until death, which occurred at 4:20 p. m. of May 4.

Autopsy five hours after death. Rigor mortis well marked. Unfortunately, through a misunderstanding, the undertaker had preceded us, and injected his preserving fluid, so that we were unable to determine exactly the amount of blood in the right pleural cavity. It must have been quite large, how-

ever, as the right lung was entirely collapsed. The ball made a clean round hole through the centre of the eighth rib on the right side, about two inches from the costal cartilage, passed through the lower side of the right pleural cavity, without injuring the lung, passed through the diaphragm, right lobe of the liver, and superior portion of right kidney, and through the inter-vertebral foramen between the eleventh and twelfth dorsal vertebrae on the right side of the spine, and lodged against the posterior surface of the body of the eleventh dorsal vertebra, just within the spinal cord, where it was so firmly imbedded that it could not be returned without disarticulating the spine, which, for sufficient reasons, we did not do.

Though we found the right lung collapsed, respiration had been normal except the first two hours after the injury.

Dr. Alfred S. Houghton read a paper on

The Danger in Specialism.

He said that specialties greatly increased medical knowledge and skill, and had secured for many much reputation. Hence young practitioners grasp any excuse for becoming specialists. But man is not a machine, but a complicated organism, and disease is complex, one organ sympathizing with another; hence it is necessary to examine every portion of the body and treat all organs affected. Hence there is danger in a specialist limiting his sphere of action and usefulness to an unnecessary degree. Another danger is that specialists are apt to become egotistic, and give rise to utterances which they will afterwards regret.

Treatment of Post-Partum Hemorrhage.

No time is to be lost when the life-blood of the parturient woman is rushing with feverish haste from her rapidly exhausting body. It is an emergency for which the physician should be always prepared. If one remedy fails, he must quickly try another, for every moment is precious. We note that Dr. M. S. McMahan (*Denver Med. Times* for August), on finding the surface of the patient pale, the extremities cold, with profuse hemorrhage, at once injects hypodermically from ten to fifteen minims of Magendie's solution of sulphate of morphine. This will invariably, and within a few minutes, produce a flushed surface, warm extremities, and a stopped or much diminished flow. He adopts no other means—no styptics, no cold compresses, and no foolish "plugging." This method he claims to have practiced with success for fifteen years.

EDITORIAL DEPARTMENT.

PERISCOPE.

Illustrations of Exceptional Symptoms and Examples of Rare Forms of Disease.

Mr. Jonathan Hutchinson thus writes in the *Brit. Med. Jour.*, July 24th:

COFFEE-STAIN PATCHES ON ONE SHIN, DISTINCTLY LUPOID IN CHARACTER AND PROBABLY SYPHILITIC: ON THE OTHER SHIN SIMILAR PATCHES, BUT NOT YELLOW.

A gentleman, whom I had treated for syphilis many years ago, consulted me, in February, 1885, for an ulcer on his tongue, which he supposed to be a reminder of his disease. I found, far back, a small epitheliomatous ulcer, which had apparently not been preceded by syphilitic changes. I inquired as to any other symptoms, and he assured me that he had never suffered anything since my treatment; but, after a little thought, added, "I have some yellow patches on my legs." I found, on the front of his left shin a group of yellow spots, covering a space half as large as the palm, and placed very near to each other. They were very conspicuous by their color, but scarcely raised, and only scaly in the slightest possible degree. On careful inspection with a lens, it was quite certain that the disease spread serpigiously, and left thin scars where it receded. It was, therefore, clearly a lupous process, and probably it was consequent on his syphilis, though located by bruising of the part. On the opposite leg he had a similar group of scars, leaving patches; but, curiously enough, they were not in the least yellow, but rather livid and dusky. Those on the left shin were almost a bright yellow, brighter than the common coffee-stain.

I use the term coffee-stain as applicable to certain yellow patches which are often seen on the legs. All observers must be familiar with them, but I am not aware that they have ever been described. Patients who have had syphilis often show them, and seek advice in consequence, but they may be seen also in those who have never had that disease. They differ in some cases in tint from lemon-yellow to deep brown. In some instances, mostly syphilitic, they leave exceedingly thin scars.

CASE OF ECZEMA-ERYSIPELAS: RECURRENT ATTACKS ON FACE.

Certainly one of the most important cases, as illustrating the relationships of this affection, which I have ever seen, was that of a gentleman, who was brought to me in 1885 by Dr. Macpherson, of Mildmay Park. Mr. D. G. P. was a collector, aged 42, a nervous man, liable to dyspepsia; but, by dint of his out-of-door occupations, maintaining usually fair health. Ten years ago he had a sharp attack of erysipelas of the face and head, caused, as he thought, by going through the Thames Subway when in a perspiration. After this, nothing occurred for six years, when he sprained an ankle, used arnica, and had an attack of erysipelas of his leg. A year later, he sprained the other ankle, avoided arnica, and yet had erysipelas. For this attack he was treated by steel, and "the steel caused eczema." He had a troublesome attack of eczema of the scrotum and thighs, which lasted for months, and which, indeed, had scarcely even yet quite left the groins and popliteal spaces. This persistence must, I think, be held to be conclusive as to the eczema kinship of this dermatitis, as the transitoriness of the others allied them with erysipelas. We now come to another phase of his ailments. He took to bicycling, and used to perspire profusely in his rides. In October, 1883, after a ride in a sharp wind, he had an attack of swelling of the face (erysipelas), which laid him up for a fortnight; and, ever since then, he had had attacks every six months or so. On one occasion, leaving a hot dinner-room, and going across the street in an east wind, brought it on. Several times, riding in a hansom cab had done it, and now and then, he thought, stomach disturbance from taking wine, etc., was the exciting cause. The attacks were ushered in by "a rushing to the head," and "feeling of fullness and flushing." "Then it seizes my eyes, and the lids are swollen up till I cannot see out." Dr. Macpherson, who had attended him through four or five attacks, told me there was not usually much redness, but chiefly great oedema.

The temperature was never materially increased. The eruption never showed any tendency to spread over the scalp, and usually began to subside after a few days, leaving the skin feeling stiff, and covered with branny desquamation. No vesicles had

ever been observed. The attacks always laid the patient up for a fortnight or three weeks, and of late his susceptibility had been such that he had scarcely been to business for two months.

As regards treatment, the prophylactic power of arsenic seemed to have been fairly tried. He had taken it for eighteen months, and the attacks had of late increased, both in severity and frequency. Formerly, the attacks had occurred in spring and autumn, and this was the first time that one had happened during winter.

INJURY TO LOWER EPIPHYSIS OF HUMERUS: STATE OF THE PARTS TWENTY MONTHS AFTERWARDS.

A little girl, aged 4, a daughter of the Reverend G. P., of the Chinese Mission, was brought to me twenty months after her accident. It was not known precisely of what kind her violence had been, since it had occurred under the charge of a nurse-girl, who only admitted that she had fallen. The elbow was bruised and swollen for some time. She was treated by plaster-of-paris case, and subsequently by a hinged splint. When brought to me the elbow could not be bent quite to a right angle, nor could it be straightened. It admitted, however, of being flexed within a limited extent. Pronation and supination were quite free. The arm was strong, and the child could use it for almost anything, but could not get it to its mouth. It appeared probable that the injury had been complicated. The head of the radius projected strongly, as if almost, though not quite, free from the external condyle. The finger could be placed in the outer two-thirds of the cup of the radius; still it certainly had not wholly left the condyle. The distance between the ulna and radius was much increased, and, no doubt, the orbicular ligament was completely torn. The inner condyle was lost; the inner side of the ulna being on the same plane, or nearly so, as the inner edge of the humerus. Then there was some thickening on the front of the humerus in this position, making it seem possible that the epicondyle had been broken off and displaced forwards. The thickening in front of the lower part of the humerus was, however, not nearly so great as is usual in separation of the whole lower epiphysis. Under an anæsthetic, I bent the elbow up to an angle of 45°, and made it very nearly straight. I advised that we should trust to time and to systematic and vigorous movements of the joint, and have little doubt that, in the course of a few years, its use will be almost perfect.

In the case of a boy, aged 10, whom I saw at the College of Surgeons (1885), it was very remarkable how rapidly full freedom of all motion had been restored. It was, I think, only nine weeks since the accident, yet there was not the slightest swelling, and he could flex and extend almost perfectly, and pronation and supination were equally free. The external condyle, together with the trochlea for the radius, was visibly displaced, and was very conspicuous. Some who examined it thought that it was still movable. The internal condyle was almost, if not quite, in due relation with the olecranon; but there was some thickening of the humerus, and the olecranon did not appear to project so much as usual. My impression was that the end of the shaft was displaced a little backwards, but I had not an opportunity for forming a deliberate opinion. Every one agreed that there had been fracture and displacement of the external condyle, but, as to other details, there was much difference of views. The wonder was that there could be such displacement, with yet perfect motion.

NODE ON TIBIA, WITHOUT SYPHILIS, AND WITHOUT PAIN.

Mr. Weller, of Wanstead, sent to me in October, 1883, a case of osseous node on the tibia, which appeared to be identical with the splint of horses. Nothing whatever as to specific antecedents could be made out, and the lump was absolutely painless. It had never given its possessor any annoyance; it had been present several years, but, unless he got it knocked, he should not, he said, have known it was there. The patient was a tall slender-boned man, and the node, which was as big as the vertical half of a small egg, was very hard. The patient, a Mr. S., aged 39, was engaged as a clerk in the docks, and was liable to have his shins knocked occasionally, but he did not remember any special accident. The node had been so conspicuous two years ago, that a surgeon, to whom he showed it, suggested that he must have had his leg broken; it was, however, still bigger now.

MORPHEA, TAKING THE ARRANGEMENT OF ZOSTER ON CHEST AND ARM: TWENTY YEARS' DURATION: RECENT SINGLE PATCH ON BACK.

Miss C. A., aged 36, consulted me on March 19, 1885, for an eruption which she had had for twenty years. She well remembered its beginning, she said, on the inner side of the right forearm, during her last

year at school. It prevented her from going without sleeves, and it also, she thought, was attended by muscular weakness, and spoiled her piano-playing. After it had been some years on the forearm, other patches appeared on the side of the right half of the chest, between the spine and the mamma, and above the latter. I found in the regions mentioned, large brown stains, and groups of stains, placed exactly like those of herpes, in a sloping line downwards and forwards on the chest, and another long group of stains down the inner side of the upper arm and forearm. The breast on that side was not so full as the other, and there was a little appearance of wasting in the ulnar muscles of the forearm. I could not, however, appreciate any definite wasting in the muscles of the hand supplied by the ulnar nerve. In the middle of some of the brown stains there was a white area. The affected skin was a little harsh and rough, but there was not now any material induration. None of these patches were, Miss A. believed, less than ten or fifteen years old. A new patch had, however, formed within the last eight months on her back. This was an oval patch, as big as a crown-piece, thick, white, and brawny in its middle, gradually fading off, and surrounded, at its extreme periphery, by a faint violet zone. This was most characteristic of the early stage of morphœa. It itched a little. Miss A. was in good health, but had a very feeble circulation. Her hands were a little puffy, and everywhere of a deep dull brick-red color, or almost livid.

The case illustrates, almost better than any other that I ever saw, the affinity of morphœa with herpes zoster. Probably, several of the intercostal nerves were affected; and, not only the intercosto-humeral, but some twigs of the internal cutaneous, possibly some of the ulnar. Neither herpes zoster nor morphœa usually keeps with exactitude to the known distribution of named nerves. It is interesting to note that, after so long an interval as twenty years, a fresh patch had formed on the back. The same happened in the case of M. This new patch was not on the same side of the trunk, but it was over the middle line to so small an extent, that it must be allowed to be possible that an erratic twig from the right supplied it. The conditions presented by the patches on the chest and arm suggested that they had all come out together—all were in the same advanced stage of retrogression. Miss A. was, however, confident in her statement, that those on the breast came five years after those on the arm.

It is very exceptional for morphœa to occur in the same person more than once. When it does so, the interval is almost always a long one, that is, several years. The second outbreak is usually on a very limited scale. I never saw a severe or extensive second attack, but I have seen three or four in which small patches appeared, as just said, after long intervals. As a rule, we may assure our patients that the deformities produced by the original outbreak will be the sum and end of their troubles, and that no recurrence is likely to happen. In the above case, three outbreaks, with long intervals, would appear to have occurred. In this feature of very exceptional recurrence we have another point in which morphœa and herpes have points in common.

Chloride of Sodium in Bright's Disease.

This is certainly a very simple remedy, yet Dr. Allard Memminger, of Charleston, S. C., highly lauds it in the *New York Med. Jour.*, July 31. He has only tried it, so far, in four cases, but his observations are of value, because it alone was used, to the exclusion of all other drugs. At first he orders ten-grain doses of the chloride, contained in gelatin capsules, three times a day, and, if the state of the case allows, by preference one hour after or before meals. He generally reverses each day the order of giving; thus, if one day the capsules are given before meals, the next they are prescribed after. If the patient complains of no nausea, he allows him to keep up; but at the slightest intimation of a sick stomach, he orders him immediately to assume the recumbent posture, and there remain for an hour or so, after which this temporary ill-feeling always subsides. The second day of treatment he increases the dose to two capsules three times a day, and every other day he increases by one capsule until the patient is taking five capsules three times a day. About this time the good effects of the treatment will be apparent, not only from the improved subjective and objective symptoms of the patient, but from the improved condition of his urine. Albumin will, of course, at this period be found still in abundance, that is, if the case is at all a grave one; even here, however, if you institute a gravimetric examination, you will find a decided improvement, not so much in the absolute as in the relative decrease in albumin.

At this juncture he orders the chloride to be diminished in quantity, and he has so far found that, after the system has thus been

brought fully under its influence, it requires but two capsules, three times a day, to keep up the desired effect. If at this stage of the case there is any decided nausea or disinclination to take the medicine, he stops the same, and during the interval gives one or two alterative pills, after which he proceeds again to a resumption of the chloride. Should albumin again increase in the urine, urea and chlorides diminishing, he immediately resorts to large doses, thus bringing the patient once more under the influence of the chloride, after which he again reduces.

The effects of this treatment are most marked. Headache, œdema, low spirits, general weakness, and anæmia, give way to just a reverse order of things, and the patient, who a few days before was most gloomy and desponding, is now full of life and hope.

Thus has it appeared to him in each of his four cases, and, if he has been led to express views that to many appear extreme, it is because his convictions are based upon clinical observations which, up to this time, he has never had the pleasure of recording with any other form of treatment. He would, therefore, urge a thorough trial of this therapeutical agent by the profession, on the following grounds:

1. It is harmless if properly administered.
2. Its effects are comparatively uniform, provided it is given for a sufficient time. That he has so far used it only in chronic cases of no long standing does not in his opinion militate against its beneficial effects; for, even should it not be found a cure for Bright's disease, may it not become an important article in our medical armamentarium—indeed, if only an ameliorator of man's sufferings and a prolonger of his life?
3. It may be employed as an adjunct to all recognized methods of treatment without detriment to the patient.

Thus, then, he asks the practitioner, teacher, and scholar, does not an array of such facts, coupled with the well-known physiological action of chloride of sodium, demand from each and every one of them a fair and honest trial in this most formidable of diseases?

The Treatment of Orchitis and Epididymitis.

Dr. Frederick W. Lowndes thus writes in the *Lancet*, July 24:

There is a sufficient diversity of opinion as to the best treatment of orchitis and epididymitis, the result of acute gonorrhœa, to induce me to give our experiences at the

Liverpool Lock Hospital. When I first became surgeon, eleven years ago, I found that the practice adopted in all these cases was that which had been suggested by Mr. Furneaux Jordan in 1869, viz., by painting the affected testicle with a strong solution of nitrate of silver (two drachms to one ounce), at the same time enforcing strict rest in bed and supporting the inflamed organ upon a small pillow, so as to prevent it from hanging down. It had been adopted for some years previously by Messrs. Worthington and McCheane, who were the surgeons to the hospital at the time when Mr. Jordan suggested this mode of treatment; and also by Mr. Chauncy Puzey, who succeeded Mr. Worthington, during the two years of his surgeoncy. I have invariably pursued the same treatment now for eleven years, and so has my colleague, Dr. Armand Bernard, who succeeded Mr. McCheane in 1882, and has thus had four years' experience of the treatment.

At my request, the resident superintendent of the hospital, Mr. Serjeant, has given me the following statistics of all the cases of orchitis and epididymitis combined from June 1, 1875, to June 1, 1886, an interval of eleven years. The numbers are as follows:

Years.	Number.
1875 to 1876	33
1876 to 1877	15
1877 to 1878	23
1878 to 1879	28
1879 to 1880	30
1880 to 1881	16
1881 to 1882	31
1882 to 1883	28
1883 to 1884	24
1884 to 1885	18
1885 to 1886	25

Total 269

All these were patients admitted into the hospital; we have no out-patients.

I have always found the treatment I have mentioned most successful. The acute pain, often amounting to agony, is soon subdued, and in the majority of cases the testicle returns to its normal size in the course of a few days. Sometimes a second painting is necessary, but this suffices. In private practice I have always used the same application. When patients can be induced to take absolute rest in bed, the result is equally successful as in the hospital. When, however, patients are compelled to follow their usual occupations, the recovery must obviously be slower, as it is impossible by any suspensory bandages or by handkerchiefs, however skilfully applied, to ensure such

perfect rest for the testicle as when the patient is lying in bed. I have heard it argued that rest in bed is sufficient of itself to effect a cure, but a very few cases so treated with spirit lotion as an application has convinced me that it is not so. The immediate effects of the nitrate in allaying the pain are most marked, though for obvious reasons the nitrate must act more powerfully upon the testicle while in a state of quiescence than when constantly moved, however slightly.

Mr. Jordan has informed me that he still pursues the same treatment, having every reason to be satisfied with it. It seems to me to be only just to him to give this very satisfactory proof of the value of the treatment which he originally suggested.

A Piece of Percussion Cap, After Lying Quietly in an Eye for more than Ten Years, Sets up an Irritation which Necessitates Enucleation.

Dr. S. L. Ledbetter, thus writes in the *Alabama M. and S. Jour.* for August:

I was called to see Mr. McL——, four miles out from Springville. I had been previously consulted by his friends in reference to his condition, and had expressed an opinion as to the probability of an enucleation being necessary, so went prepared. The family physician and two other local physicians went out with me.

We found the patient in a closely-curtained room. He was very much emaciated and nervous; said he had no appetite, and was very much depressed; had been suffering almost constantly for the past five or six weeks with his eye. Nothing gave him any relief but morphia. He stated that about eleven years before, while shooting, a piece of gun-cap struck him on the eye; that his eye pained him a good deal for a week or two; but as soon as the immediate effects of the injury passed away, his eye was all right and caused him no uneasiness, save the impairment to vision. So he went along until the preceding fall, when he began to suffer from neuralgic attacks in that eye, which were very severe, and usually laid him up for a week or ten days each time. The attack from which he was then suffering had lasted longer and had given him more pain than former ones, and had so reduced him that he felt, unless something was done for his relief, he could not stand it much longer.

Upon examination I found the eye very sensitive to light, with considerable injection of conjunctiva and sub-conjunctival tissue, but could not make a very careful examina-

tion, as the eye was so very irritable. (I had not begun the use of cocaine then.)

There was also a line of corneal opacity passing from the inner margin of the cornea toward the pupil, a lenticular opacity and a posterior synechia, showing that the body had passed into the inner structure of the eye. There had been no sympathetic trouble in the other eye, but on account of the distance and inconvenience of getting to the patient, together with the amount of suffering the patient had endured, with very little prospect of recovery, I advised enucleation. The patient and his attending physician both agreed to the operation, which was done under ether.

Upon examination after the enucleation, it was found that the lenticular opacity was confined to the outer margin of the lens where the body passed, tearing off a portion of the lens, and setting up an irritation which resulted in synechia. After a very careful search the body was found lodged in the ciliary processes to the outer side of the eye. It was a small fragment of metal, no larger than a mustard seed.

The patient made a good recovery, and has had no further trouble. His general health improved very rapidly, and in a short while he was able to attend to his business as usual.

Lithotomy in Children.

The following statistics by Werewkin (*Centralblatt für Chirurgie Medicale*, No. 8,) are of much interest, as showing how suitable an operation lithotomy is for children:

"From July, 1876, to January, 1884, there were admitted to the Children's Hospital 221 cases of stone in the bladder; here are the statistics, with the ages of the patients:

					Per Cent.
From	1	to	2	years	17 (7.69)
"	2	"	3	"	44 (19.92)
"	3	"	4	"	46 (20.82)
"	4	"	5	"	47 (21.22)
"	5	"	6	"	21 (9.50)
"	6	"	7	"	9 (4.07)
"	7	"	8	"	10 (4.52)
"	8	"	9	"	11 (4.99)
"	9	"	10	"	10 (4.52)
"	10	"	11	"	8 (3.62)
"	11	"	12	"	7 (3.16)
"	12	"	13	"	8 (3.62)
"	13	"	14	"	2 (0.90)
"	14	"	15	"	1 (0.50)

210 of which were boys and 11 were girls. 13 only of the 221 cases were unsuited for operation. The lateral operation was done in 147 cases, the median in 16 cases, the 'high'

operation in 24 cases, by external incision of the urethra 17 cases.

"In the lateral operation on reaching the bladder the wound was enlarged by a scalpel, not the lithotome, the stone seized, and the wound washed out with an 8 per cent. solution of chloride of zinc, and then sprinkled with iodoform afterwards. A silver catheter was introduced into the bladder through the wound for drainage. The recovery usually occupied three to four weeks. The complications were few, ten failed, nine became erysipelatous, two got orchitis, and three died from accidental causes.

"Of the 135 cases which recovered, seven suffered from fistula, and two had incontinence of urine. Of the twenty-four 'high' operations seven died; in two of the cases active peritonitis occurred. Of the sixteen median operations there was one death, and one case of fistula; five cases were recut. The stones for the most number were unequally sided, round, or oval, from 1 to 3 c. in diameter, and in weight averaged about 10 grammes. The operations were carried out with antiseptic precautions, and unless the first day after the operation, there was no elevation of temperature."

The Value and Dangers of Antiseptic Methods.

Dr. A. R. Smart thus concludes a paper in the *American Lancet* for August:

In conclusion, we offer these propositions:

1. The precautions incident to the antiseptic treatment are of the greatest value independent of their connection with the germ theory, viz., drainage, cleanliness, and rest.

2. Antiseptic agents may accomplish as much by preventing decomposition in wounds, thus destroying a fertile field for the development of germs, as by the destruction of the spores themselves.

3. Antiseptic agents, especially corrosive sublimate and acid carbolie, are often used in too strong solutions, thereby inducing local irritation and rendering systemic poisoning possible.

4. Antiseptic surgery is not desirable in abdominal surgery, so far as concerns the local use of antiseptics, general antiseptics and perfect cleanliness giving the best results.

5. The use of antiseptics in obstetrical practice should be limited to abnormal labors, and when intra-uterine injections are used only the weaker solutions should be used, and they only with the greatest caution to insure their ready escape. Corrosive subli-

mate is to be regarded as the most dangerous of all agents thus used. In gynecological practice the same caution should be observed, several instances of salivation and death even having followed vaginal douches of corrosive sublimate.

We can but protest against the advice to leave from 90 grains upward of iodoform in either the vaginal or uterine cavities. In the routine treatment of cervical or vaginal diseases we would advise the use of milder antiseptics, especially the use of boro-glyceride.

REVIEWS AND BOOK NOTICES.

NOTES ON CURRENT MEDICAL LITERATURE.

—The address of Dr. J. P. Thomas, of Pembroke, Ky., president of the Kentucky State Medical Society, has been printed in pamphlet form. The subject is "The Doctor as an Officer of the State." It is treated in a thoughtful manner.

—Dr. W. S. Whitwell, in a pamphlet before us, reports a case of successful transfusion in typhoid fever.

—M. Pasteur, and his method of treating hydrophobia, is the subject of an intelligent exposition by Dr. Thomas M. Dolan, of London, published by H. K. Lewis, 136 Gower street, London. Price, one shilling.

—In a pamphlet published by Cupples, Upham & Co., Boston, Dr. V. Y. Bowditch discusses the question of homœopathy from the homœopathist's standpoint.

—Dr. A. B. Judson, of New York city, in a reprint before us, reviews the treatment of white swelling of the knee, and gives his conclusions as to what constitutes the most efficient methods.

—Dr. Llewellyn Eliot, of Washington, reports in a reprint two unsuccessful cases of permanent drainage for ascites, the details of which should make practitioners cautious about this method.

—Dr. David Prince, of Jacksonville, Ills., has issued a second edition of his essay on Atmospheric Purification; and Dr. A. E. Prince, of the same city, sends an account of an improvement in the operation for pterygium.

—Several new medical ventures appeared on the first of July. The *Medical Missionary Record* is to be a monthly maga-

zine devoted to the interests of medical missions. Its editor and proprietor is Dr. G. D. Dowkontt, 118 East 45th street, New York, and its terms are \$1.00 a year. Our own opinion on the aims of this journal may be very briefly put: that it is wise for missionaries to learn and practice medicine; and that it is unwise for medical men to do any theological teaching or talking.

BOOK NOTICES.

A Manual of Practical Therapeutics, Considered with Reference to Articles of the Materia Medica. By E. J. Waring, M. D., and D. W. Buxton, M. D. Fourth edition. 1 vol., pp. 666. P. Blakiston, Son & Co., 1886. Price, cloth, \$3.00; sheep, \$3.50.

Many years have elapsed since the first edition of this work appeared, and in that time great changes have taken place in the fashions of therapeutics. To meet these, and to present this important branch of medicine in its latest light, the authors have diligently revised the text of the previous editions, and present the volume now as an exponent of what is latest and soundest in therapeutical teaching.

The articles of the materia medica are arranged alphabetically throughout, and each is discussed chemically, medically, and therapeutically. Its physiological action is also touched upon, although this is considered subordinate to the strictly clinical aspect. Numerous formulæ are inserted in the text, suggesting favorable combinations of ingredients. Several very complete indexes are added to the volume, which greatly facilitate its use as a work of reference. In its present revised form, Waring's *Therapeutics* will long preserve the popularity which it has heretofore enjoyed.

Analysis of the Urine, with Special Reference to Diseases of the Genito-Urinary Organs. By K. B. Hoffmann and R. Ultzmann. Translated by T. B. Brune and H. H. Curtis. Second edition. Pp. 310. Price \$2.00. New York, D. Appleton & Co., 1886.

The rapid advance which urinary analysis has made within the last three years, as well as the exhaustion of the first edition of this work, has called upon the translators to give the text a careful revision and to add a description of various tests and methods which have of late come into vogue. This they have done in a very complete and con-

scientious manner, rendering this treatise probably the most exhaustive one on the subject now in our language. They have also appended to the work a translation of Dr. Ultzmann's description of his saccharimeter, and a carefully-prepared index; a number of beautifully-executed photographic illustrations of crystals are also appended.

The Use of Electricity in the Removal of Superfluous Hair and the Treatment of Various Facial Blemishes. By George Henry Fox, M. D. Pp. 67.

The Modern Treatment of Ear Diseases. By Samuel Sexton, M. D. Pp. 95.

Inhalers, Inhalations, and Inhalants. By Beverly Robinson, M. D. Pp. 72.

New Medications. By Dujardin-Beaumetz, M. D. Translated by E. P. Hurd, M. D. 2 parts. Pp. 320.

The works whose titles are given above are portions of "The Physician's Leisure Library," published by George S. Davis, Detroit, Michigan. They are issued at the uniform price of 25 cents each, or a series of twelve for two dollars. The paper is good, the type clear, and the general high literary character of the selections is guaranteed by the names and standing of the writers. The subjects are those which have an immediately practical bearing, and upon which recent and trustworthy information will be welcome to the mass of readers. The volumes are placed at a price so reasonable that we cannot doubt they will meet with a sale equal to their merits and to the legitimate expectations of the publishers.

The Treatment of Hemorrhoids.

Various are the means suggested for the relief of this painful affliction. One surgeon prefers this, another that method; one patient will only submit to the ligature, while the next will not tolerate it. So it is, diversity of opinion, diversity of willingness on the part of the patient, and consequent doubt. So, Dr. Charles B. Kelsey, of New York (whom we all know to be a man of great experience), after devoting several pages to a discussion of this subject in the *Med. Record*, August 7, concludes thus:

"After all has been said, I can only add that the most satisfactory cases of hemorrhoids, of moderate or great severity, which come to my notice, are those in which the patient says at the outset, 'Cure me as you think best.' In them I use the clamp and cautery. They seldom cause a moment's uneasiness, and the result is always very gratifying."

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ETIOLOGY OF TYPHOID FEVER.

The bacillus of typhoid fever has long since been discovered, it has been artificially cultured, and its nature and specific properties have been investigated. Some writers still deny the existence of this pathogenic bacterium simply for the reason that they do not find it invariably present in the bodies of individuals having died with the disease, nor in the blood of patients suffering from it. But they forget that no pathogenic bacteria are always met with in the disease they cause, their presence mainly depending upon the stage of the malady. For instance, in relapsing fever the spirilli are found in the blood in numberless quantities during the febrile period, while in the interval no such bacteria are met with. In cholera the comma bacillus can easily be demonstrated in the intestinal canal of patients, recently sick with the disease, while later, when mortification has attacked the mucous membrane of the bowels another bacterium takes its place, and the specific bacillus is no longer found. Another point of importance is the seat of the pathogenic microbe; in cholera it would be useless to hunt for the bacillus in the blood, and in tuberculosis we would look in vain for its micro-organism in the brain when the lungs are alone affected.

Drs. E. Fraenkel and M. Simmonds have recently contributed an interesting article on the bacillus of typhoid fever, and published the same in the *Central f. Klin. Med.*, 1886, No. 44. They obtained the following results, which well illustrates what we said above:

1. In 12 cases of typhoid fever the bacilli could be isolated and matured by pure culture of the germs taken from the spleen. In a thirteenth case, where the typhoid disease had ended and the patient had died with pulmonary gangrene, the bacillus could not be found.
2. In slices of the spleen the presence of the bacillus was demonstrated easier, if they were left for a few days under a cover-glass and with antiseptic precautions, and then hardened.
3. The blood of typhoid patients gave in six cases an absolutely negative result.
4. In the discharges from the bowels the bacilli were met with in only 3 of 7 cases.
5. Inoculation of 27 rabbits with typhoid cultures into the auricular vein was 15 times successful, from injections into the peritoneal cavity 1 of 14 rabbits died, from such into the duodenum none evinced any unfavorable result; of 20 gray mice, 14 died after intraperitoneal injection, and of 3 guinea-pigs 1.
6. Death ensued in these cases from within a few hours to at the most 3 days.

7. Animals that had not succumbed after the first injection, did also not die from repeated inoculations, with one single exception.

8. In the fatal cases swelling of the spleen, of the mesenteric glands, of those in the axillary and inguinal regions, and of Peyer's patches, was invariably met with. Almost invariably from slices of the spleen, and always from pure cultures, the same bacilli were over and over reproduced.

The bacillus of typhoid fever may serve, therefore, as a means to discover the cause of death in obscure epidemics, such as have recently occurred in small cities of our country. For this purpose bacteriological examinations should be made of the spleen of such individuals who died while still suffering from the acute stages of the disease, for after this has run its course or when complications have set in the specific bacillus can no longer be found.

FIBROID PULMONARY PHTHISIS.

Dr. A. Sokolowski has made a careful study of 40 cases of so-called fibroid lung phthisis (*Deutsch. Arch. f. Klin. Med.*, xxxvii., p. 433), i. e., that form of consumption whose anatomical basis is characterized by extraordinary proliferation of the connective tissue, which generally develops either primarily or oftener secondarily after other acute diseases of the lung or the pleura. This form is mainly characterized by its very chronic course, lasting years and decades, also by the absence of fever and by its inclination to transient standstills of the disease; later the symptoms of common phthisis set in, but possessing certain peculiarities.

From a clinical point of view, the following varieties had to be distinguished:

(a) The common fibroid phthisis (phthisis fibrosa simplex); and, (b) fibroid phthisis complicated with pulmonary emphysema (phthisis fibrosa ab emphysemate).

Regarding hereditary influences, fibroid phthisis is inherited far more rarely than common tubercular phthisis, and the malady generally develops in later age. Though the disease usually sets in after some acute lesion of the parenchyma of the lung, or of the pleura occasionally, hæmoptysis is to be looked upon as the causing element. S. believes that the fibroid phthisis differs only in so far from the common form as hereditary influence plays no part, and as the connective tissue is specially affected.

Concerning symptomatology, the patients

usually look well; fever and night sweats are wanting. Cough and expectoration vary in the different stages; tubercular bacilli are always found in the sputa, but in small quantities. Dyspnoea is one of the most important signs; hæmoptysis is very constant, often habitual, and not accompanied by fever or any bad consequences. The physical signs also vary according to the stage. Morbid changes in other organs are met with but seldom, as laryngeal ulceration, or such in the intestines, or nephritis. As the course of the disease is very chronic, the prognosis *quoad vitam* is far more favorable than in the common phthisis.

Therapeutically, S. recommends in the first stage residence in mountainous regions, also cold douches; in the second stage with its cough and dyspnoea such residence is contraindicated, and that near the ocean recommended; also a milk or kumys cure, cod liver oil, glycerin, alcohol, and arsenic.

THE STATE BOARD OF HEALTH OF PENNSYLVANIA.

It is very gratifying when any man or body of men have labored earnestly and untiringly for the public good, to see their labors appreciated. For this and other reasons we think it well to give editorial publicity to the following remarks from the *Pittsburgh Times* of July 30. Under the editorial heading of "IT HAS PROVED ITS RIGHT TO BE," this valuable paper says:

"The service rendered by the State Board of Health to the people of West Elizabeth in their affliction by the outbreak of fever, is an illustration close to home of the usefulness of that organization.

"In such cases people are likely to lose their heads, and to need above everything directions as to what they should do. They call meetings and discuss the perils, but disperse as undecided as when they assembled. The local doctors are usually busy with the sick, and have little time to give counsel as to sanitary arrangements. Besides that, they are pretty sure to differ as to the origin and nature of the pestilence, and as to the best means of suppressing it. The State Board stepping in with a system of rules concerning the closing of wells and preparation of hospital accommodations, is welcomed as a succorer, and its instructions are the means of restoring confidence and leading to intelligent treatment of the danger.

"The Board has hardly reached the end of the first year of its existence, but what it has done, as at Elizabeth, and at places still

nearer Pittsburgh, in abolishing nuisances perilous to health, is sufficient argument for *its right to be, and to be amply supported.*"

These italicised words should be well pondered, for of what use will be the most efficient Board, if it be not amply supported, both *morally and financially.*

SALT IN BRIGHT'S DISEASE.

We would call attention in an especial manner to the remarks of Dr. Memminger (page 240) on the beneficial influence of chloride of sodium in Bright's disease. This is truly a very simple remedy, and if it has any curative effect over this terrible malady we should at once establish the fact. We would strongly urge our readers to give this remedy a fair and full trial, and report the results.

NOTES AND COMMENTS.

Badly Made Trusses—Large Strangulated Femoral Hernia—Successful Herniotomy and Radical Cure.

How frequently is more harm than good done by the use of a badly-made truss. Therefore, we note that Mr. Vincent Jackson, in describing some improperly made trusses, in one of our English exchanges, narrates the following case: A woman, aged 44, stated that, when 23 years of age, whilst laughing heartily, she felt something come into her right groin. By degrees, a swelling appeared, and a truss was applied; but from this period, in spite of every kind of instrumental support, the hernia gradually increased until it reached very large proportions. As a rule, a night's rest had enabled her to return the hernia; but twenty hours before Mr. Jackson saw the patient, symptoms of strangulation commenced. The hernia was seen to be very large, occupying almost the upper half of the left thigh. It felt very tense, and seemed to contain fluid, intestine, and omentum, as was verified upon the operating-table. The tumor being freely laid open, much red serum flowed away, and the huge coils of congested small intestine were reduced, although the neck of the sac was freely incised, and stretched to its utmost extent. The omentum was carefully overhauled, but, as it was much changed in appearance, being puckered, thickened, and altered in color, the whole was first secured by tying it at various points with carbolized silk, and then cutting it away. The sponge which had been placed over the intestines being removed, the neck of the sac was

stitched together. Poupart's ligament and the fascia forming the outer edge of the saphenous opening were carefully approximated. As much of the sac as possible having been cut and torn away, the edges of the wound were united with sutures and drainage-tubes; and the dressings having been applied, the patient was removed to bed. The lady made an excellent recovery, and, although a light truss was directed to be worn, the cure was complete. The piece of omentum removed weighed one pound and a half.

A Case of Ununited Fracture of the Humerus, and a Method of Treatment thereof by Metal Screw-taps.

These "ununited fractures" are frequently so troublesome that we are glad to note that before the Academy of Medicine in Ireland, Mr. Henry Fitzgibbon exhibited a brace fitted with drills and screw-taps for the fixation of the resected bones, and reported a case of ununited fracture of the humerus which he had successfully operated upon by this method. Mrs. T., admitted into the City of Dublin Hospital, 13th March, 1885, with comminuted fracture of humerus which refused union, was sent to seaside until November 14th, when she was readmitted with permanent non-union. Operated upon November 26th successfully by means of screw-taps and wire suture, which were removed on the 21st day after operation. The patient was exhibited to the Academy with firm union and a useful arm on April 16th. Mr. Fitzgibbon attributed the non-union to the pressure of the comminuted fragment being displaced upwards, so as to cause pressure upon the brachial vessels, depriving the lower fragment of sufficient blood-supply.

The details of the apparatus could be secured by addressing the author, care of the *London Medical Press*, in which journal the report appears.

Ligation of the Vertebral Arteries for Epilepsy.

A great fortune and imperishable fame awaits the man who will devise any means by which a radical impression can be made on *Simon-pure* epilepsy, that is to say, on epilepsy not dependent upon syphilis. The question of ligating the vertebral arteries has been more than once broached, and it is thus summed up in the *Neurological Review* for July by Dr. J. L. Gray, of Chicago:

1. Ligation of the vertebral arteries should take its place as a recognized procedure in the treatment of certain cases of epilepsy.

2. The operation should be confined to those cases in which the exciting causes of the attacks come from some region outside the brain.

3. The arteries should be tied as high up as practicable, and the ligature should include all the fibres of the sympathetic accompanying the vessel.

4. Where the side of the brain which is first invaded by the disease can be determined, the artery of that side should be ligated.

5. Where the invasion of the disease is apparently bilateral, both vertebrals should be ligated.

6. This operation should not be done as a substitute, but as an aid to other forms of treatment for the relief or cure of epilepsy.

Puerperal Tetanus.

Dr. W. Netzel mentions in the *Hygieia* a case of puerperal tetanus. The patient was a woman of twenty-five, a primipara, who was brought to the lying-in hospital by a midwife a day and a half after labor had commenced. The foetus was dead, and its large head locked in the pelvis. The os uteri was 5 centim. in diameter, thick, and rigid. Perforation was resorted to. The foetus and placenta were expelled spontaneously five hours later. The cavity of the uterus was washed out with a 3 per cent. solution of carbolic acid. The temperature rose on the fourth day, and the lochia became putrid. Intra-uterine injections of a 3 per cent. solution of carbolic acid were used, and the vagina was washed out with sublimate. On the eighth day trismus and stiffness of the neck appeared. The following day there was stiffness in the shoulder and spasmodic contractions of the facial muscles, with painful spasms. The temperature was 41° C.; pulse 140. The woman died at midday. Chloral had been given, and subcutaneous injections of morphia and curare. On making a post-mortem examination an ulcer was found in the cervix reaching through the uterine walls to the peritoneum. There was parenchymatous degeneration of several organs. Dr. Netzel considered the tetanus in this case to be a symptom of general septic infection.

Cure of Basedow's Disease by Operation.

The case which Prof. Hack reports in the *Deutsche medicinische Wochenschrift*, June 24, 1886, is a strange one. A girl of 17 was suffering from Basedow's disease, with

well-marked symptoms. The mucous membrane of the nose happening to be so much swollen that she had to keep her mouth almost constantly open, she came to Prof. Hack for relief. He cauterized the smaller mucous membrane on the right inferior turbinated bone, and found next day, to his astonishment, that the exophthalmos on the side operated on had almost disappeared. He operated on the other side, and anxiously awaited the result, which was also favorable, but not such a brilliant success as the first attempt. Strangely enough, the other symptoms likewise improved, and the operation on the nose seems to have cured Basedow's disease itself. Prof. Hack's explanation of the result is that the disease, in this case at least, was purely reflex, and that as soon as the irritation in the nose ceased the disease vanished. The increased action, and even the increased size of the heart, he attributes to this same reflex action; the coronary arteries might be dilated, and thus give the organ an over-plentiful supply of blood. He further upholds his reflex-theory by giving parallel cases.

Cocaine Aided by Electricity to Act as a Local Anæsthetic.

O! thou glorious drug; what virtues dost thou not possess! Truthfully, after a time, it will be easier to enumerate the virtues wanting to, than those possessed by, cocaine. It is well known that the simple application of a cocaine solution upon the sound skin has no anæsthetic effect. This may, however, be brought about, according to Dr. Wagner, of Vienna, by combining an electric current with the cocaine. It is known that the electric current has the property of causing the forward movement of fluids which are contained in capillary tubes—this is called the cataphoric force or effect of the electric current. If the electrodes of a battery are moistened with a solution of cocaine, it has been found that the latter is propelled into the cellular tissue, causing the skin to become anæsthetic within a few minutes, so that it may be punctured with needles or cut with knives without causing any sensation or feeling of pain. Any desired amount of skin surface may in this manner be made anæsthetic. The anæsthesia lasts ten to fifteen minutes, but may be prolonged by applying an Esmarch bandage previous to the application of cocaine. This is a most pregnant suggestion, and we would be glad to publish any experiences that our readers may have in this line.

The Menopause and Diseases of the Ear.

The influence of the menopause on diseases of the ear has been the subject of a recent paper (*Annales des Maladies de l'Oreille et du Larynx*) by Dr. Ménière, and results from 140 carefully made observations are given.

The paper is divided into two very distinct parts: First, the influence of the menopause on disease of the ear already existing. Second, the diseases of the ear caused by the influence of the menopause.

On already existing ear disease the influence of the menopause is but slight, and amongst those so influenced the author includes chronic inflammation of the external meatus, perforation of the tympanum, eczema, vegetations, and polypi. Of the middle ear he includes catarrh of the eustachian tube, chronic catarrh of the tympanum, etc. In the second group he includes furunculi of the external meatus, eczema of the external meatus, of the middle ear, myringitis, acute pain, buzzing noise, vertigo, deafness, and Ménière's disease.

The pathology of these diseases is, according to Dr. Ménière (*La France Médicale*), readily explained by the great vascularity of the organ of hearing, and its hyperæmic conditions during the menopause.

Recovery from Severe White Swelling of Knee.

Before a recent meeting of the Medico-Chirurgical Society of Edinburgh, Mr. A. G. Miller showed a case demonstrating recovery from white swelling of the knee-joint of a severe type. The patient, a boy, had been under his care twice for this affection, and on each occasion had recovered. The treatment at first was the application of Scott's dressing and elastic pressure. On the last occasion on which he returned, the joint was so far gone and the ligaments affected to such an extent that amputation was recommended, but declined. In its place the actual cautery was applied. When the slough came away excessive hemorrhage occurred, and continued for about a fortnight. It turned out that the boy was a bleeder, and it was therefore fortunate that amputation had not been performed. The recovery of the joint was as perfect as anything he had ever seen, all the movements being quite restored.

Ununited Fracture of Left Patella; Lister's Operation; Recovery.

About a year ago a powerful young man entered the Perth Infirmary for fracture of

left patella. He had been treated in the usual way for three weeks; but when he was examined the fragments were found 1½ or 2 inches apart. As there was not the least attempt at union, and the fracture transverse, Dr. James P. Bramwell (who reports the case in the *Edinburgh Med. Jour.*) chloroformed him, laid open the joint very freely under antiseptic precautions, refreshed the surfaces, bored the fragments vertically in three different places, brought the surfaces into excellent position, and hammered in the wires after dividing them.

From first to last there was scarcely any appreciable constitutional disturbance, and the large wound healed by first intention. From his timidity, however, in using his leg, there persisted some stiffness in the joint, which gradually gets less by persistent exercise.

Congenital Malformation of the External Ear.

Dr. T. R. Williams, of Beechtree, Pa., writes thus to the *Med. News*: "Mrs. T—, of this place, gave birth a few days ago to a female child who had a deformity of the left external ear. The cartilaginous portion was entirely wanting, and the soft parts were in a very rudimentary condition, except the tragus, or what I took to be it, which seemed to have about its usual development. The external auditory meatus was completely obliterated, not even a trace of any opening showing. Whether this condition obtains throughout the entire canal I cannot say, as I made no operation to ascertain this. The child weighed about nine pounds, and was otherwise perfectly developed. I would add that not long since I delivered a member of this same family of a child with hare-lip. I closed the fissure by an operation, using the hydrochlorate of cocaine successfully as a local anæsthetic."

Echinococcus in the Arm.

Dr. Nolte describes, in a recent number of the *Allgemeine Med. Central. Zeitung*, the case of a woman who, in April last, consulted him on account of a swelling in the inner bicipital furrow of the left arm. It has been present three years; it was small and painless, and grew steadily, but until lately did not prevent her from performing hard field labor. She took no notice of it, and did not seek medical advice until it became troublesome. When seen, it had the size and shape of a goose's egg, and felt hard and distended; there was no fluctuation or

murmur; the tumor was quite painless. At the lower part was a small opening, from which fluid escaped. The arm having been carefully cleansed, an incision was made under strict antiseptic precautions, when there escaped about fifty echinococcus-cysts, varying in size from a pea to a walnut. The wound healed soon, and recovery was complete.

Hysterectomy and Nephrectomy.

La Gazzetta degli Ospitali (July 21) reports a successful operation by Professor Calderini, of Parma, for the removal of the entire uterus. The organ had been completely prolapsed for some time, and was the seat of multiple sub-peritoneal myomata. The temperature after the operation never exceeded 37.7° C. Of six vaginal hysterectomies four were successful in the hands of Professor d'Antona, of Naples. This operator has devoted much attention to renal surgery. He prefers lumbar to abdominal nephrectomy, and thus summarizes the statistical results of the two operations up to this date. In 111 lumbar nephrectomies the percentage of mortality has been 39.93, whereas the abdominal method practiced 120 times is said to have yielded a death-rate of 50.83 per cent.

Heart Disease following Over-exertion.

J. Seitz in Zurich, Corvisart, Hope, Kreyzig, Albott, Peacock, and many others, have all maintained that heart disease is frequently due to over-exertion; but since Bouilland showed the close connection between heart disease and acute rheumatism, the over-exertion hypothesis has been pushed rather far to the background, and the object of a paper by Leyden (*Zeitschrift für klinische Medizin*) is to restore it to its merited position. With this view he gives a short resumé of writings on the subject, pointing out the frequency of cardiac ailments among the harder worked classes and soldiers under the hardships of war. He refers particularly to Peacock, Myers, and Da Costa, and others who give both facts and opinions strongly in favor of the over-exertion theory.

Pruritus Ani.

"How will you relieve 'pruritus ani'?" is the cry of many a physician, who has been driven to his wit's end. Many means have been recommended, but few prove permanently effective. We now note from the *Moniteur Therapeutique* that M. Grellety recommends, for the simple form, frequent

Sitz-baths, ano-perineal douches, or bathing the parts several times daily with warm water, containing one part per hundred of boracic acid. During the night he uses a starch poultice, or an ointment of oxide of zinc and vaseline, one part to five. If these fail, he uses tents saturated with belladonna ointment, and then a five per cent. solution of cocaine introduced into the anus. The food must be simple and bland.

Vesico-Vaginal Fistula—Rupture of the Perineum and Extensive Division of the Recto-Vaginal Wall.

Mr. Vincent Jackson, of England, relates the case of an unmarried girl, aged 18, who was admitted into the hospital a month after being confined of a still-born male child at full term. She was attended by a midwife; and, after being in labor for twenty-four hours, she was seen by a medical man, who delivered her by the aid of the forceps. Her height was 4 feet 8½ inches. She was completely restored from a very wretched and uncomfortable condition by three operations. Two were required to close the large transverse vesical aperture, and one to restore the perineum and re-unite the unusually long recto-vaginal fissure.

The Treatment of Syphilitic Iritis.

This is an alarming condition that calls for prompt interference; no mere temporizing, if we wish to save the eye. Dr. S. G. Dabney tells us, in the *Am. Pract. and News*, that he at once brings the patient under the influence of the bichloride or protiodide of mercury in combination with iodide of potash. Darkness should be insisted on and tonics given, if required. The pupil should be dilated at the start (with a few drops of a four-grain solution of atropia), and this dilatation maintained until all signs of inflammation are gone. This is the basis of treatment; of course, symptoms must be managed as they arise.

Treatment of Cholera amongst the Chinese.

According to a communication of a European doctor (*Alleg. Wiener Med. Zeitung*) living in China, the municipal treatment there for cholera consists in acupuncture and cauterization, not only adopted by the mass, but also by the educated classes. Chinese physicians who have studied in Europe ascribe the best results to this treatment. The Chinese explain the beneficial results of this treatment by declaring that the poison of cholera gathers in certain points of the body, which the skilful physician discovers,

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and from which he draws off the poison. The pains which are due to the cramp are unquestionably relieved by the treatment.

The Bacillus of Typhoid Fever.

Dr. George W. Lewis has been making some experiments with this individual, and he describes them in the *Buffalo M. and S. Jour.* for August. Of six mice and two rabbits inoculated with a pure culture of this organism, four of the mice and both of the rabbits died inside of nine days. The only pronounced symptom—and this was common to all exceptone rabbit—was the constant and exhausting diarrhœa. Upon examination, no marked changes were detected in the spleen or in any of the intestinal glands.

Electricity for Tinnitus Aurium.

"One man's meat is another man's poison," and the kind and amount of electricity that will cure John Smith of tinnitus aurium will not do the same for Tom Brown. So Dr. Julius Althaus very wisely tells us in the *Lancet* (July 31). He has found electricity very beneficial in this annoying complaint, but each separate case must be a study in itself, and that form of electricity and that strength used which is found to be effective in controlling the "ringing."

Hypodermic Solution of Quinine.

When it is necessary to administer quinine subcutaneously, the following formula is recommended by Dr. S. Burt, as being as little irritating as possible:

R. Quinæ bisulphatis,	3j.
Acidi borici,	gr. ij.
Morphinæ sulphatis,	gr. 4.
Aquæ destillatæ,	3j.

Amyl Nitrite an Antidote to Cocaine.

Dr. Shilling reports in the *Medical Chronicle* that a female patient, to whom a solution of cocaine had been administered hypodermically, became suddenly unconscious. Suspecting that this was due to a contraction of the blood vessels in the brain, he caused her to inhale the vapor of three drops of amyl nitrite, which restored her in a very short time.

New Local Anæsthetics.

Dr. Mays claims that a five to a ten per cent. solution of brucine is an efficient local anæsthetic, especially useful in relieving pruritus. The same author has shown that hypodermic injections of one to two or three grains of a solution of theine relieves the pains of neuralgia.

CORRESPONDENCE.

Sleeping with Open Windows.

EDS. MED. AND SURG. REPORTER:—

Man is placed at the head of the animal kingdom, and why he does not enjoy the same immunity from disease that characterizes the inferior animals is, in all probability, attributable to his absence of consistency in regard to a strict observance of those habits which are indicated by his true relation to other material and immaterial matter of the laws of creation. His body is a combination of most wonderful and perfect organs, and, when subjected to precision in the observance of the laws directing and controlling healthy functions, will last a long time, endure much fatigue, and perform great labor. This is manifested in the long lives of the many men who, by careful regard for their physical health, are enabled to enjoy their three score and ten years without the pain and disorders incidental to an imprudent life and careless mode of living.

THE SUM OF HEALTH.

The laws of nature are the laws of health, and he who most closely observes such laws will have the greatest promise of a long life, freed from interruptions of the natural performance of the functions of the organs of his body. Many think they can control or direct nature as the whim of their misguided notions or passions may dictate; but it is not long before this is found to be a serious mistake. The violated laws of nature and of health soon send pain and disease as the penalty, to mark and name the acts of insubordination to the injunctions of the mandates of the principles that govern a harmonious working of the respective organs of the body. Therefore there are other suicides than those who take their lives by violence, whose suffering and premature end could be directly traceable to flagrant acts of rash imprudence in reference to an observance of those dictates of nature relative to the maintenance of a healthy condition of the body.

SLEEPING IN THE NIGHT AIR.

Man has his bed and the beast has its lair, and it is an instinctive law of the nature of the beast, when it goes to sleep, and the atmosphere is of a temperature much below that of its body, to secrete and seclude itself as much as its surroundings permit, from the benumbing influence of such cold air; and if to sleep in the night air were not injurious to the animal economy, the beast would not be instinctively led

to avoid it, for when beasts sleep in the cold night air they always place their nostrils near their sides, in order to breathe the air tempered by the warmth of their bodies; and even birds, whose lives are spent in the air, usually sleep with their bills beneath their wings, or hidden among the feathers of their breast. From these observations of the mode of sleeping of the inferior animals, we learn the relation of sleep to night air, and ascertain the great efforts which such animals make to protect their bodies and lungs against its injurious influence; but it has been reserved by superior and intelligent man to rise above the teachings of instinct, and arrogate to himself a knowledge far surpassing the sure and steady prescience of nature; and like the conceited German prince who, it is said, strutted abroad one morn and exclaimed that if he had been present on the morning of creation he could have made things better.

An individual is never known to suffer from sickness or disease caused by sleeping in a clean room from which the night air is excluded; but certainly many have been known, beyond peradventure, to contract sickness, from which they have even died, from sleeping in rooms to which the night air was freely admitted. The thorough ventilation of a bed-room in the morning, while it is being put in order, is very proper; but sleeping in it during the night with the air from without pouring into it, is both improper and undoubtedly perilous to health. It is not only the lowered temperature of the night air that is so seriously objectionable, but it is the breathing while asleep of the gaseous poisonous properties which the night air always contains in a more condensed and active form; and it is for this reason that night air is instinctively and proverbially considered prejudicial to health.

DANGER OF NIGHT AIR.

Most beasts line their lairs with dead grass, moss, or other substances, not to make them soft, but to make them warm. This instinctive act is directed by nature in obedience to the physiological fact that when the body is at rest and asleep the organs do not perform their functions with the same activity that they do when the body is in motion. Hence, the bodily temperature always sinks slightly during sleep; and if while asleep, cold air is allowed to come in contact with the body and the lungs, the result is that heat is carried off more rapidly from the sleeping person than is commensurate with

health, and has the effect of diminishing the resistance of the system to those morbid influences so characteristic of night air.

The rays of the sun rarefy the air of the day, and cause a greater dilution or diffusion of the poisoned particles in the air, while at night the air becomes condensed by the cooling of the earth, and its humidity is greatly increased in comparison with the air of the day. As a consequence of this humidity of the night air, the poisonous particles which it, to a greater or less degree, always contains, become concentrated, more potently noxious, and rise to a much higher level. It is also at night that the emanations from organic decay are more perceptible; and malarial and miasmatic poisons extend with greater rapidity, and do their most deadly work. The penetrating and dangerous properties of the chill, damp air of night, can not possibly be otherwise than most injurious to the sleeper who breathes it; for while asleep he has no protection against it, and it gathers in and about him, surrounding his bed with malaria and miasm.

DELICATE PERSONS.

A person with a good constitution, and living properly, is the one best protected against the causes of disease, and will even resist with great power the potency of both local and general poisons of either a tangible or intangible form; but one with a weak or delicate constitution, attended with an improper and imprudent manner of living, is always more or less liable to the causes of disease, and is the most susceptible and early victim to those poisonous emanations which are taken into the lungs through the medium of the atmosphere, and poison the blood by their peculiarly noxious atoms; and surely this class ought to be the least desirous of occupying sleeping-rooms to which the night air has free access.

CONDITION WHILE ASLEEP.

The individual who sleeps at night near an open window is less protected than he is in the day time. On going to bed he takes off his heavy clothing to put on night-clothes which are lighter and better conductors of heat. He lies between sheets over which are usually thrown comforts and blankets, and if the covering should not be large enough to fall well down around the bed, and he be restless during his sleep, he is very apt to get the covering disarranged, and thus sleep all night with some portion of his body exposed to the night air. In this way the night air obtains a ready contact with some unprotected part of his body, lowering its

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temperature, giving him cold, enfeebling his system, and rendering him more liable to the poisonous effect of those germs of insidious diseases with which night air is ever known to be freighted. Had each season a uniform temperature, the sleepers with open windows at night would fare far better; but unfortunately this is not the case. The respective seasons have variable temperatures, and a cold wave often makes in a few hours a difference in the temperature of from ten to thirty degrees. When such changes occur at night, the sleeper is generally unconscious of it; and, not having provided himself with extra bedclothing against such a contingency, often awakes chilled and painful; and should he, under such circumstances, escape serious illness, it will be the exception and not the rule. Therefore, individuals who sleep with open windows run risks which they cannot control; and while one may be benefited by the habit, at least ten are injured by it. For these unavoidable reasons, the delicate and frail should be very cautious how they let the night air in upon them while asleep, for such imprudence often forms material for death.

Even the most robust who sleep in the night air frequently awake in the morning with a husky voice, dry nostrils, pains in the limbs, and uncomfortable feelings about the chest, to tell them that they took cold during the night, and to warn them against the risk and imprudence of letting the external air in too freely into their sleeping rooms at night.

J. B. JOHNSON, M. D.

Washington City, D. C.

A Clever Malingerer.

EDS. MED. AND SURG. REPORTER:

Your correspondence of July 31st ultimo—"Caught in His Own Trap," reminds me of a case that a brother surgeon in the conscript department of the Confederate army related to me. A stout, robust-looking conscript was brought in by an officer. The surgeon put the usual question; "Upon what reason do you claim exemption?" Answer. "Piles." "Very well, we will have to examine you." "Oh yes, certainly, Doc. I know that." He very promptly placed himself in proper position for examination, and indeed, so ready and willing was he to be examined, that the surgeon felt sure it would be but a formality; but as soon as he saw the anus, the appearance of the parts, and then for the first time the man's muscular development, and every other appearance of perfect health, his confidence in the man

weakened. "But how can he expect to 'fool' me in a claim of piles?" He proceeded with the examination in the usual way, and at once his finger came in contact with evidently an abnormal tumor, very large, and too hard for any pile he had ever felt. Pretty soon he got an ocular demonstration, and found he could pass his finger all round it, and that it was not attached to anything. He got hold of it with his forceps, drew it out, and said, "*Chicken gizzard*, you are exempt; but my good fellow, you must go into the army."

S. W. C.

A Caution about Croton Oil.

EDS. MED. AND SURG. REPORTER:

I recently was called to a patient in convulsions. When consciousness returned, I decided to give him some croton oil, as he had been very constipated. Two drops were poured on a lump of sugar, which was placed in his mouth and, I supposed, swallowed. Turning my back, I heard my patient say, "What is this?" Looking at him, I found he was holding the lump of sugar between his forefinger and thumb. I ordered him to swallow it, which he did at once, but *I neglected to wipe his fingers*. Shortly afterwards he drew his fingers across his nose and eye, and within two hours he had the most intensely inflamed eye (lasting for three days) that I ever saw; in addition to which his nose was decorated with a most beautiful blister of vigorous proportions.

Cal.

E. F. J.

NEWS AND MISCELLANY.

American Neurological Association.

At the annual meeting of this association held at Long Branch, N. J., July 21, 22, and 23, the following papers were read:

"The Accurate Collocation of a Suture and Fissure in the Human Fetus," by Dr. Burt G. Wilder, of Ithaca. "Importance of the Study of Cerebral Convulsions," by Dr. Charles K. Mills, of Philadelphia. "Lesion of Both Temporal Lobes, Causing almost Absolute Loss of Memory of Events, without Word-deafness or Deafness," by Dr. L. C. Gray, of Brooklyn. "Pseudo-hyper-trophic Paralysis," by Dr. V. P. Gibney, of New York. "A Case of an Infant with multiple Tumors of the Cerebrum, probably of Specific Origin," by Dr. Sarah J. McNutt, of New York. "The Cause of Electrotonus and the Normal Formula of Polar Reactions," by Dr. G. Betton Massey. "Electrical Dosage," by Dr. Jacoby. "Micro-

cephalic Girl," by Dr. Amidon. "Notes on the Brain; an Additional Case of Independence of the Par-occipital Fissure," by Dr. B. G. Wilder. Dr. Mills then presented the brain of a baboon and of a negro, sent by Dr. Formad, of Philadelphia, but time was not afforded for a careful examination. "On Some Affections of the Nervous System associated with Tuberculosis," by Dr. Leonard G. Weber, of New York. "A Decerebrated Frog," by Dr. Wilder. "Pseudotabes from Arsenical Poisoning," by Dr. C. L. Dana, of New York. "The Treatment of Facial Spasm," by Dr. Wharton Sinkler, of Philadelphia. "Remarks on Epilepsy," by Dr. E. D. Fisher, of New York. "Intracerebral Hemorrhage in the Young," by Dr. Sachs, of New York. "Auctioneer's Cramp," by Dr. Zenner, of Cincinnati. "A New Portable Battery," by Dr. Jacoby. "Moral Insanity; a Plea for a More Exact Cerebral Pathology," by Dr. Jas. H. Lloyd, of Philadelphia. "A Median Section of the Head of a Murderer, Injected with Alcohol," by Dr. Wilder.

OFFICERS FOR THE ENSUING YEAR.

President—London Carter Gray, M. D., of Brooklyn, N. Y.

Vice-President—John Van Bibber, M. D., of Baltimore, Md.

Secretary and Treasurer—G. M. Hammond, M. D., of New York.

Councillors—Dr. B. Sachs, of New York; and Dr. Wharton Sinkler, of Philadelphia.

The International Medical Congress.

The *London Lancet*, the most widely read and influential medical journal in the world, speaks thus cheerfully of the International Medical Congress, in its issue of July 24th:

"Our latest information is to the effect that the arrangements for the great International Congress at Washington are progressing favorably. In the case of many of our European brethren the occasion of a visit to the United States will be an unique one in their lives. We have not yet reached that familiarity with the Atlantic which is such an attainment in our American brothers,

Qui siccis oculis monstra natantia,
Qui vidit mare turgidum.

Nevertheless, many on this side are anxious to return the visits so generously made from the other. And whatever the discomforts of the voyage or the severity of the *mal de mer*, we are likely to have the advantage of much brotherly assistance and advice. It may mark a new era in the treatment of sea-sickness, when so many zealous physicians and

surgeons are set in competition for their own relief. Be this as it may, great preparations are being made in Washington and elsewhere, and it only remains for Europe to see that the guests are forthcoming. It is the great element in all such gatherings that they be well "furnished with guests," and we would now urge on the profession and its leaders that they will do a great service by an early decision to attend, and still more by an early intimation of it to those concerned. There are American physicians who have visited England annually for thirty or forty years, and on rare occasions perhaps more than once in the year. The late Dr. Flint, whose absence will be acutely felt at Brighton this year, and at Washington next, has come of late years to think nothing so refreshing as a run to the old home of his forefathers. Let us reciprocate the compliment on this high occasion, and make the very Atlantic the measure of our desire to cultivate international science and friendship.

Mississippi Valley Medical Association.

At the twelfth annual meeting, held in Quincy, Ill., July 13 and 14, Dr. H. M. Lane, of Carthage, Mo., read a paper on "Yellow Fever in Brazil;" Dr. Louis Bauer on "Laparotomy for Symptoms of Ileus;" Dr. A. H. Ohman-Dumesnil, of St. Louis, on "An Unusual Case of Lupus Erythematosus;" Dr. Arch. Dixon, of Henderson, Ky., on "Perineal Lacerations;" Dr. I. N. Love, of St. Louis, on "Artificial Alimentation;" and Dr. Frank R. Fry, of St. Louis, on "The Etiology of Chorea."

Dr. Dudley S. Reynolds read a paper on "Optical Defects in the Eye and Their Correction." Papers were also read by Dr. Amos Sawyer, of Hillsboro, Ill., on "The Therapeutics of Bismuth and Asclepias Tuberosa;" by Dr. L. H. Cohen, of Quincy, on "Electro-Therapeutics;" and by Dr. E. B. Montgomery on the "Therapeutics of Hot Water."

OFFICERS FOR THE ENSUING YEAR.

President.—Isaac N. Love, St. Louis, Mo.

First Vice-President.—Joseph Robbins, Quincy, Ill.

Second Vice-President.—Jacob L. Geiger, St. Joseph, Mo.

Third Vice-President.—Thos. B. Harvey, Indianapolis, Ind.

Secretary.—J. L. Gray, Chicago.

Treasurer.—A. H. Ohman-Dumesnil, St. Louis, Mo.

Assistant Secretary.—Edw. Allcorn, Houstonville, Ky.

Committee of Arrangements.—Dudley S. Reynolds, Louisville, Ky.; Louis McMurry, Danville, Ky.; James H. Letcher, Henderson, Ky.; J. N. McCormick, Bowling Green, Ky.; L. B. Todd, Lexington, Ky.; J. Q. A. Stewart, Frankfort, Ky.; J. M. Holloway, Louisville, Ky.; J. M. Matthews, Louisville, Ky.

The next annual meeting will be held at Crab Orchard Springs, Ky., on the second Tuesday in July, 1887.

Iowa State Board of Medical Examiners.

The new Iowa State Board of Medical Examiners met recently and adopted rules for granting certificates, and a schedule of minimum requirements of medical colleges to secure recognition was adopted. A list of nearly three hundred medical schools was adopted to be recognized by the Board. Nearly one hundred colleges were refused recognition. Certificates will be refused upon failure to present a diploma from a recognized medical college, failure to submit the proper affidavits, or, upon examination, to answer correctly eighty per cent. of the interrogatories propounded. In all cases recommendation of good moral and professional standing must be given. The Board held meetings in other parts of the State, beginning at Dubuque, July 29, Mason City, Fort Dodge, Sioux City, and Council Bluffs, stopping two days only at each place, when examinations will be had and applications received for certificates, and diplomas verified. These meetings are held for the convenience of physicians in different parts of the State. All midwives in the State are required to conform to the same rule as physicians, and secure a certificate to practice.

American Medical Association, Formed in 1846.

Next annual meeting will be held June 7, 8, 9, and 10, 1887, in Chicago, Ills.

President—E. H. Gregory, M. D., St. Louis, Mo.

Permanent Secretary—W. B. Atkinson, M. D., Philadelphia, Pa.

Assistant Secretary—J. Nevins Hyde, M. D., Chicago, Ill.

Treasurer—Richard J. Dunglison, M. D., Philadelphia, Pa.

Librarian—C. H. A. Kleinschmidt, M. D., Washington, D. C.

Chairman of Committee of Arrangements—Charles Gilman Smith, M. D., Chicago, Ill.

All membership dues should be sent direct to the Treasurer, Richard J. Dunglison, M. D., lock box 1274, Philadelphia, Pa.

A Voodooed Pillow.

A writer in the *New Orleans Picayune* tells how he met a colored woman who attributed her husband's illness to his sleeping on a "voodooed pillow." She felt the pillow and discovered the "voodoo," which felt hard. The pillow was carried to the river, cut open, and the feathers cast into the water over the left shoulder. If they assumed the shapes of animals as they floated away, the sick man would get well. In a subsequent interview, this sable lady informed the writer that the feathers floated off as dogs, cats, etc., and her husband was well.

Official List of Changes

OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE UNITED STATES MARINE HOSPITAL SERVICE, FOR THE WEEK ENDED AUGUST 7, 1886.

Hutton, W. H. H., surgeon. To proceed to Key West, Florida, for temporary duty, August 7, 1886.

Bevan, A. D., assistant surgeon. Ordered to examination for promotion, August, 1886.

Williams, L. L., assistant surgeon. When relieved at Buffalo, New York, to proceed to Mobile, Alabama, for temporary duty, August 2, 1886.

The Outlook for the Congress.

Prof. W. F. Peck, of the Iowa State Medical University, who is now making an extended tour of Europe, writes as follows from Amsterdam to the *Jour. Am. Med. Ass.*:

"I visited Prof. Esmarch the other day in Kiel. He will come to the International Medical Congress. From what I can learn, the profession of Europe will send a large delegation. Prof. Billroth told me that he expected to attend, and Carl Braun will accompany him."

Items.

—Dr. Oliver Wendell Holmes is leaving England by the "Catalonia," which sails from Liverpool on August 24.

—Dr. Maas, the accomplished Professor of Surgery in the University of Berlin, died suddenly at Würzburg recently, at the early age of forty-three.

—The *Sanitary News* laments, on hygienic grounds, the organization in Chicago of a Company known as the "United States Hash Preserving Company."

—It had been proposed to build a large hygienic institute in Vienna, but unfortunately the means are not forthcoming at present, so the project is necessarily in abeyance.

—It is intended to establish a professorship of the Chemistry of Food in the University of Berlin. The holder of the chair is to have the rank of Extraordinary Professor.

—Professor Graskey, of Würzburg, has been called to Munich as successor to the late lamented Professor von Gudden, whose tragic end will be still fresh in the recollections of all.

—The Liebig Monument Fund amounts to 25,000 dollars, and the monument will be erected in Ziesel, a small Hessian University town, where Liebig first won fame as a lecturer on chemistry.

—A sanitary convention, under the auspices of the Michigan State Board of Health, will be held at Coldwater, on Thursday and Friday, September 9th and 10th, 1886, the time (September 23d and 24th) originally fixed for the meeting having been changed.

—It is reported that a Cleveland, Ohio, druggist, in filling an order for sugar of milk, substituted arsenic, which was administered to three children by the mother, who also took some. The mother is said to have died, and the lives of the children are despaired of.

—A person styling himself Dr. Vivian, of New York, who has for some time been victimizing the profession and the public in various parts of England, was recently arrested on a warrant for a hotel fraud. Bail was refused, and the prisoner remains in custody, "wanted" for various offenses.

—As on the 30th of August next Mr. Chevreul will attain his one hundredth year, a movement is on foot to commemorate this anniversary by a medal which shall transmit to posterity the features of the illustrious *savant*. A medal is to be presented, and a copy of it will also be sent to each subscriber.

—Eugene S. Yates, M. D., of Lawrence, Mass., died on Wednesday, July 28th. He was graduated from Bellevue Hospital Medical College in 1872, and from 1879 to 1883 he was the City Physician of Lawrence. At one time he was a member of the local board of health. His death is said to have been due to paralysis.

OBITUARY NOTICE.

FRANK H. HAMILTON, M. D.

Dr. Frank H. Hamilton, of New York, who was associated with Dr. D. Hayes Agnew, of Philadelphia, in the treatment of President Garfield, died August 11. The

immediate cause of his death was the failure of his system to receive nutriment, but for more than three years he had been in a steady decline. His lungs had long been affected, and since December, 1883, repeated pulmonary hemorrhages had made such draughts upon his system that he had known for a year past that recovery was out of the question. With his attending physicians, Drs. Austin Flint, J. R. Leaming, and L. E. Damainville, he frequently discussed his own case, and made notes upon the progress of his malady.

He was a native of Wilmington, Vt., and would have been seventy-three years old in September next. In 1833 he graduated from the medical department of the University of Pennsylvania, and after practicing at Auburn, N. Y., and Buffalo, settled in New York city in 1862. For two years he served as medical inspector of the army during the war, and during that time laid the foundations of his fame as a surgeon, which was not excelled by that of any contemporary practitioner. His inventions of surgical appliances and contributions to the science have been more numerous than those of any other surgeon of his time. Among them may be mentioned the bone-drill, the compound Nelaton's probe, bullet forceps, a movable apparatus for fractures of the thigh, the modified Liston's artery forceps, serrated giant bone cutter, hare-lip scissors, an improvement on Owen's tonsillotomy, and a method of manipulating the bodies of drowning persons. One of his most valuable contributions was his system of keys and guides to the articulations. He vastly improved the gutta percha splints, and in surgical operations of the first magnitude he made numerous daring and successful innovations. He wrote a treatise on military surgery and a general surgical treatise, beside publishing scores of articles in professional journals. He was for many years Professor of Surgery in the Bellevue Hospital, and at the time of his death visiting surgeon to Bellevue Hospital, consulting surgeon to St. Elizabeth Hospital, to the Hospital for the Ruptured and Crippled, and to various city dispensaries.

QUERIES AND REPLIES.

FISTULA IN ANO.

I would like to ask your readers whether they would consider it wise surgery to endeavor to heal a discharging fistulous tract about the anus, the result of an abscess, in one who has some kidney trouble, and who as a result of a reckless life is much "broken up." X. Y. Z.

CANADIAN PHYSICIANS.

Can you tell me how many physicians of all kinds there are in Canada? A. B. C.

We refer this query to some of our Canada readers.
EDS. MED. AND SURG. REPORTER.